

WIDENER

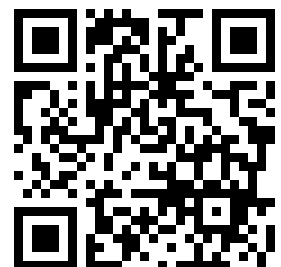


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COMMERCIAL CATALOGUE COMPILING

"HOW TO 'BUILD' A CATALOGUE"

BY
S. W. WATERHOUSE

COMMERCIAL CATALOGUE COMPILING

"HOW TO 'BUILD' A CATALOGUE"

BY
S. W. WATERHOUSE

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TO THE
AMERICAN CATALOGUE MAKERS
OF
THE PAST, THE PRESENT AND THE FUTURE.

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but nothing on the subject of catalogue making, compiling or printing, or even remotely referring thereto, could be found, nor did the library catalogues indicate any publications of that character.

The author therefore determined to build up an original system of catalogue-making.

The methods and systems finally decided upon were tabulated and posted upon the walls of the catalogue-room for the benefit of new members of the catalogue corps, as well as for the purpose of refreshing the memories of old members of the corps from time to time.

At that time the author had no intention of publishing the results of the work of the department of which he was temporary manager, but his attention was called to the fact that material was available for a possible publication on the subject of commercial-catalogue compiling which might prove helpful to others wrestling with the problems of catalogue efficiency and uniformity.

Before thoroughly reading this book, it is suggested that the reader glance through the chapters, reading the first few words of each paragraph for indications of matters of general or special interest. However, before proceeding to compile a catalogue, or, if a catalogue is being compiled, before further labor is expended, the book should be read thoroughly, and should be referred to from time to time during the compiling of the catalogue.

The author desires to call attention to the last paragraph of Chapter XV, page 101.

Since writing the foregoing chapter the attention of the author has been called to the following books, the first two of which were published before, and the last after, this was written:

"Some Notes on Catalog Making," Samuel Graydon, 1909.

"The Production of the Printed Catalog," Alex. T. Phillip, London, R. Atkinson, 1910.

"How to Compile a Catalog," G. G. Wasson, Kansas City, Mo., Tiernan-Dort Printing Co., 1915.

CHAPTER II.

CATALOGUE AND SAMPLE ROOMS.

COMMODIOUS and convenient catalogue departments are the exception and not the rule. Cramped quarters of any kind usually cause delays and inefficient work, but certain classes of work require more room than other classes. For example, experience has taught that drafting-rooms must be commodious, light and properly equipped. Such was not always the case, but, as making drawings of any kind is expensive, it soon came to be realized that space and equipment were cheaper than labor and mistakes. Probably the number of false motions made, and the loss in misspent labor, are not so self-evident in the case of catalogue-making, the poor quarters usually furnished to catalogue departments being thus accounted for.

The author managed a catalogue department at first with too narrow quarters. The same corps was subsequently transferred into commodious and well-equipped rooms, with the result that increased production of manuscript was evident as soon as the corps became settled in its new quarters. Within three months manuscript production increased fifty per cent and increased one hundred per cent in six months, the excellence of manuscript also being increased.

As the first consideration in planning a catalogue-room is ample space, the department should, if possible, be located in a part of the building where space is not valuable. However, if there is a sample-room, the catalogue-room should be located as near-by as possible, in order to afford ready access for the purpose of examining merchandise.

It should also be stated, in passing, that the catalogue-room should, if possible, be so located as to be free from noise and vibration. The quieter the quarters the better the work, both in quality and in quantity.

As the catalogue-room is not ordinarily open to the public, "plain" carpenter work in the construction of partitions, benches, shelves, "stand-up" desks, etc., will be found satisfactory. Painting is not essential, but, if desired, plain painting is not very expensive.

Plenty of desk room is necessary on account of unavoidable accumulations of catalogues, papers, etc., on compiling-desks. Most of the work can be performed best on so-called "stand-up" desks of a height of about 42 inches and a depth of about 36 inches. From five to eight front feet of desk-space should be allowed to each compiler. Such desks should have level, and not sloping, tops. Satisfactory "stand-up" desks can be built against a wall, more room for paraphernalia, etc., being afforded by building two or three shelves above and at the back of the desks. The desks may be covered either with heavy paper, or, more satisfactorily, with enameled duck or light oilcloth. High stools may be used at intervals, but the nature of the work is such that much of it must be done standing.

Plate 1 is a plan of a catalogue-room in which a catalogue of vehicle supplies of

about six hundred pages was compiled. The compiling-desk extended the full length of the room, about thirty-six feet, and accommodated five compilers and clerks. A catalogue-room of the size shown, namely, 22 by 36 feet, or about eight hundred square feet, was found to effect less net cost of operation of the department and more rapid production of manuscript than about four hundred square feet previously occupied by the department. The sample-room was separate.

The reference catalogue files require a large amount of room in order to effect the greatest efficiency. As will be explained in Chapter IV, it is necessary to have, if possible, six copies of each reference catalogue, of which one copy will be kept intact for reference only, the other five "surplus" copies being used to "cut up" for manuscript clippings, etc.

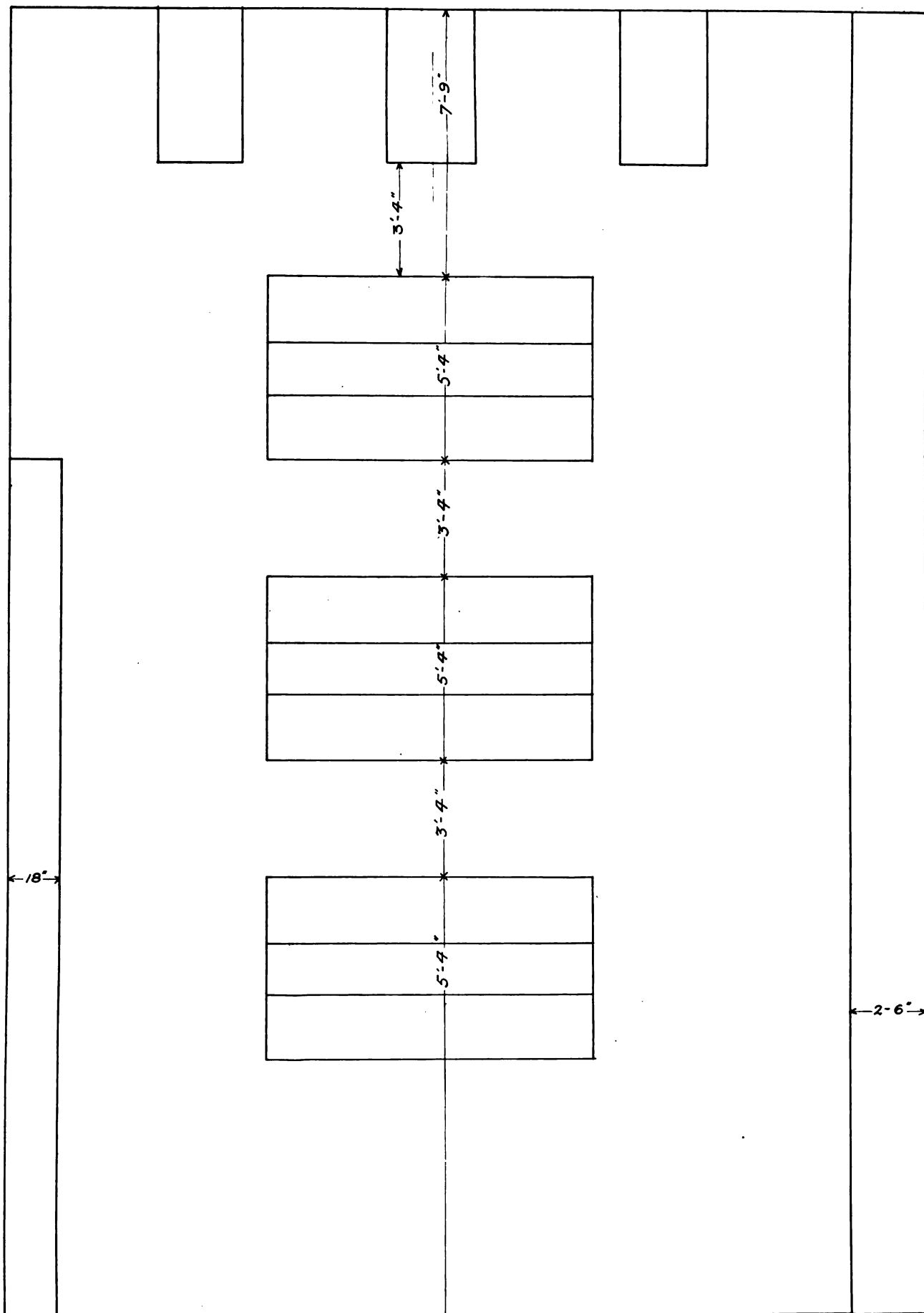
The reference catalogues should rest on their front edges, backs up, and should not be placed on their bottom edges in the manner in which books are usually placed on book-shelves. At intervals of every two or three feet should be placed a Japanned Book Support, an article used in libraries to subdivide as well as support, in a vertical position, such books as are not in their proper places on shelves but are being temporarily taken care of on tables, counters, etc.

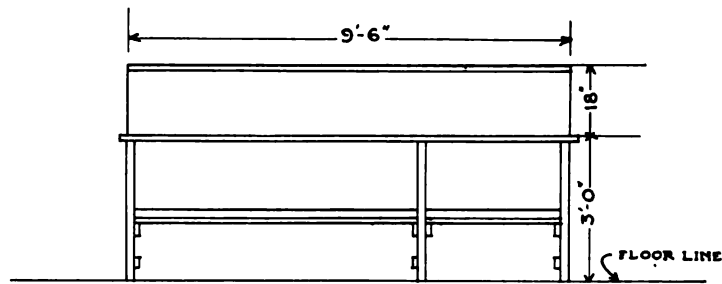
Catalogues may be filed on shelves along the walls of the room, and access thereto attained by means of rolling ladders, but ladder climbing should be avoided if possible. As above suggested, the catalogue-room should be located in a part of the building where space is not valuable, but even if located on valuable space, generous allowance of room will be found to effect great economy of labor, and the rent or rent-equivalent of such space will be much cheaper than the extra labor and delay resulting from restricted space.

The best form of reference-catalogue files was, after many experiments, found to be benches about 36 inches high and 24 inches deep, with a back shelf about 12 inches above the bench and 10 inches deep. At the back of the bench are filed catalogues about 6 by 7 inches and larger ("Large" reference catalogues), the space in front of these catalogues affording room for examination, sorting, etc., and on the raised back shelf catalogues about 5 by 6 inches and smaller ("Small" reference catalogues). It is necessary to divide the reference catalogues into two classes, Large and Small. "Large" catalogues range in size from about 6 by 7 inches to about 12 by 14 inches, and "Small" catalogues from about 2½ by 3 inches to about 5 by 6 inches. The reason for the segregation of reference catalogues into two classes, "Large" and "Small," is the facility afforded in quickly finding any desired catalogue which, if large and small catalogues are filed together, is not easy, because small catalogues are hidden by the large ones, and handling is made more difficult by the great variations in size.

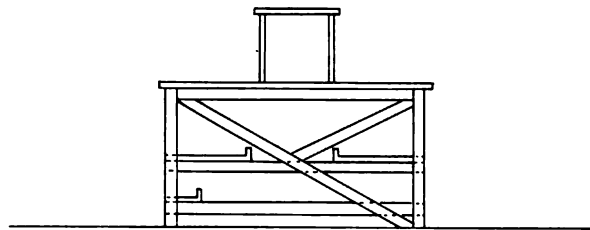
If space is limited, or the number of reference catalogues large, two shelves may be placed underneath the bench, the lower one of which may be used for "Large" reference catalogues and the upper one for "Small" reference catalogues.

Very large and bulky catalogues should be kept in a separate place and not filed with ordinary reference catalogues.

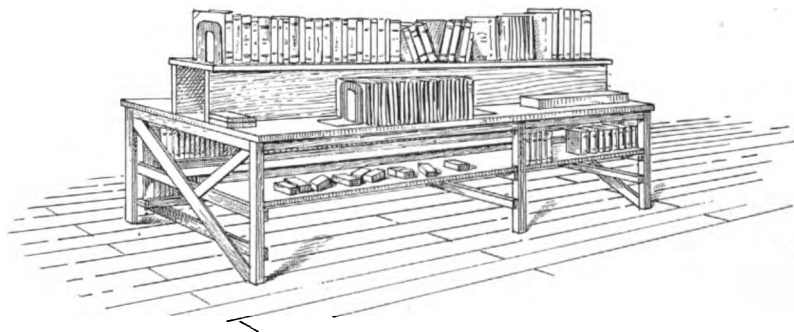




· ELEVATION · OF · CATALOGUE · FILING · BENCH ·



· SECTION · THROUGH · FILING · BENCH ·



· PERSPECTIVE · VIEW · OF · FILING · BENCH ·

Plate 1 shows a plan of reference-catalogue files; Plate 2 longitudinal and cross sections and perspective view.

Sufficient space should be reserved in the room for a flat-top desk for the manager of the department and for a desk for an assistant, if the undertaking is a large one. Roll-top desks should have no place in a catalogue department, for the pigeon-holes simply serve as catch-alls for the voluminous matter constantly accumulating, and the "superstructure" of a roll-top desk prevents two persons from working on opposite sides in "calling back," proofreading, etc.

One or two benches or tables on which to sort cuts and electrotypes, etc., should be placed near the manager's desk.

As it is inevitable that the compiling of a catalogue will result in adding to the line many new articles of merchandise, and in eliminating some previously carried, while substituting others of new manufacture or design, it is necessary to provide space for examination of merchandise. Also, it will frequently happen that catalogue-compilers are not familiar with the articles to be catalogued, which may make the examination of such articles by the compilers advisable, in order to enable them to incorporate complete information in the catalogue. Unless such articles are bulky, it is advisable to convey them to the sample-room rather than have the compilers go to the stockrooms.

If there is a sample-room in existence, it should be furnished with facilities for the examination of additional merchandise, or another room should be provided for this purpose. If it is not possible to so locate the catalogue-room that the sample-room is reasonably accessible therefrom, a separate sample-room adjoining or as near as possible to the catalogue-room is advisable.

In compiling the vehicle supplies catalogue above referred to, two tables, each about 16 feet long and 4 feet wide, were placed in a room adjoining the catalogue-room. These tables had shelves extending the full width of the tables at a height of about one foot from the floor. The table tops and the bottom shelves were covered with enameled duck in order to ensure cleanliness.* If the sample-room is temporary, it will nevertheless be necessary to retain samples in the sample-room until the completion of the catalogue, for some point may possibly arise even as late in the process as proofreading. Such articles as have been examined may be placed on the bottom shelf of a sample table, the top of the table being used for new examinations. If the sample-room is to be permanent, final disposition of samples will, of course, be made in accordance with whatever system of sample display is adopted.

Unless a convenient safe or vault is available, the catalogue-room should be provided with a fireproof safe of sufficient size to receive catalogue manuscript, indexes and all matter which would be extremely difficult or perhaps impossible to replace in case of fire.

It is sometimes found advisable to combine the advertising and catalogue departments, in which case, against the walls of the room may be constructed shelving, on which may be arranged advertising matter in the nature of circulars, booklets, etc.

* See Plate 3.

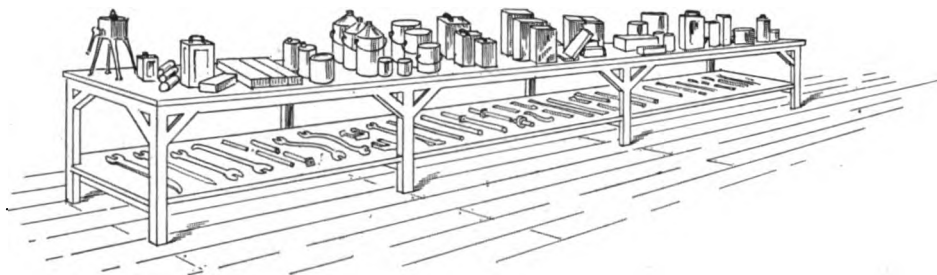
Adjustable shelving is very convenient, being easily constructed by boring in the uprights two rows of holes and using metal shelf rests. For easy access the shelves should be equipped with rolling ladders.

Proper artificial lighting and heating equipment should be provided. In case natural light is not of the best, particular attention should be given to artificial lighting, as work on catalogue manuscript is hard on the eyes. If electricity is the lighting medium, the best desk lighting is effected with portable goose-neck flexible-metal-tubing lamps equipped with tungsten "bulbs."

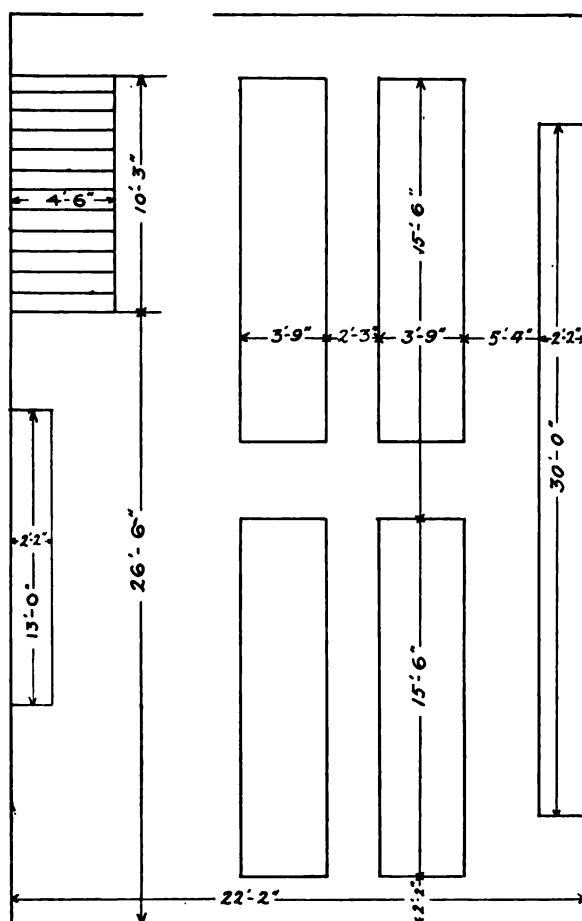
In case furnace heat is not available, a satisfactory means of heating is secured by a stove placed inside of a galvanized-iron compartment, with a door in front, and open at the top. Air is admitted to this compartment at the bottom from outside the building, either directly or through a pipe or duct. This device practically provides a hot-air furnace within the room. The subject of ventilation should also be given proper attention.

Convenient hand-washing arrangements should be provided, and, if running water is not at hand, a wash-basin, with a supply of water, and a waste pail should be conveniently placed, as hands must be kept clean in working on manuscript, etc. It is doubtless unnecessary, but perhaps well to suggest that the common towel is barred by present knowledge of the laws of health and possible spread of disease: each member of the corps should have a separate towel, or paper towels should be provided.

A supply of wholesome drinking-water is necessary, and it is even more necessary to have separate drinking-cups for all employees than it is to have separate towels. Individual paper drinking-cups, with glass-enclosed cup brackets, are now obtainable at nominal cost. Sanitary cup cabinets, in which the cups of employees may be kept on numbered hooks, thus effecting economy in the consumption of paper cups, are also obtainable. The spread of disease by germs is an acknowledged fact, and to any one recognizing the attendant dangers the use of a public drinking-cup is as abhorrent and as disgusting as would be the use of a public toothbrush.



- PERSPECTIVE - VIEW - OF - SAMPLE - TABLE -



- PLAN - OF - SAMPLE - ROOM -



FIG. 1

*Catalog Department
Showing Filing
Benches and
Compiling Desks*

FIG. 2

*Catalog Department
Showing Filing
Benches*

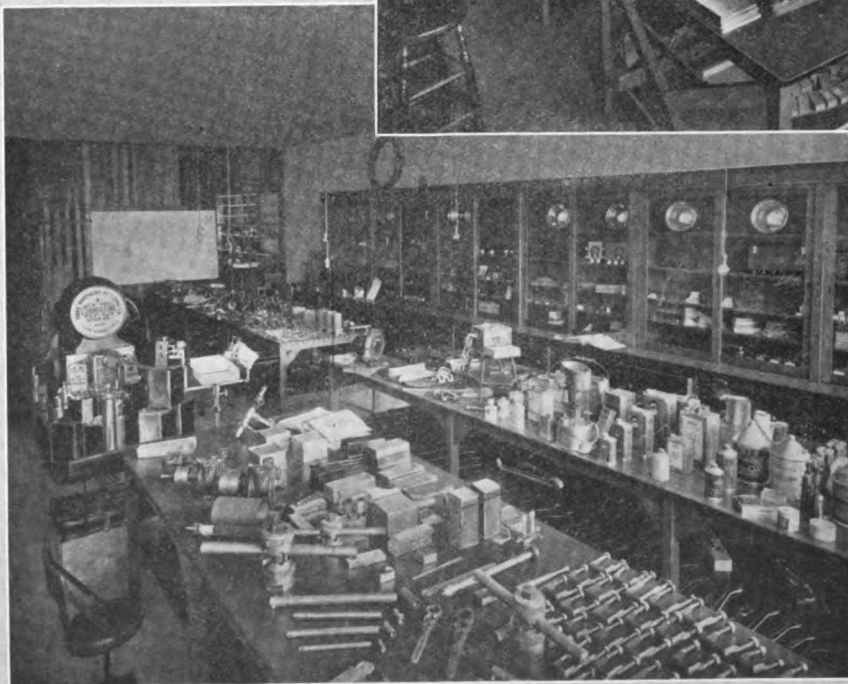


FIG. 3

*Catalog Department
Sample Room*

CHAPTER III.

WORKING INSTRUMENTS AND MATERIALS.

ADEQUATE working quarters having been provided, the next consideration is that of an equipment of working instruments and materials. The various materials and instruments suggested in this chapter are based upon the experience of the author, and are subject, of course, to modifications according to judgment.

The completeness of the equipment is almost of more importance than the provision of proper working quarters. Much of the time wasted in a catalogue department can be accounted for, not only by the absence of proper working quarters, but by inefficient work due to poor working instruments or to "lost motion." The "principles of scientific management" should be applied to the catalogue department and vigorously carried out. Any waste motion, however small, should be eliminated. For example, the matter of pencil-sharpening, especially if soft pencils are used, as is advocated, becomes of material consideration. Members of the corps should be positively instructed not to carry away pencils, and this rule should be enforced. Furthermore, no one in the department other than the boy or the clerk delegated for the work should be allowed to sharpen a pencil. The idea that pencils should be specially sharpened by individuals is absurd. A Boston Pencil Sharpener* will do the work much better than it can be performed with a knife.

In this chapter will be set forth all of the various working instruments and materials, with a very few exceptions, necessary in the department.

Reference has been made in the previous chapter to Japanned Book Supports as a means of maintaining reference catalogues in a vertical position. These articles may be obtained at any library supply house, and one book support should be used between about every seventy-five small catalogues, and one between about every twenty-five large catalogues. It is advisable to have an extra supply of book supports on hand.

To the wall, or to a shelf-upright, at the side or back of each desk should be attached a brass spiral pen rack, in which should be kept a supply of medium soft lead-pencils and a small supply of blue and red pencils. Harder lead-pencils than medium soft do not make very distinct lines and should not be used, as the handling of manuscript rubs and smears the pencil lines thereon. These pencils require frequent sharpening, but make heavy lines which require considerable rubbing to obliterate. A pencil-sharpener should be installed and an office boy or clerk should be delegated to keep a supply of sharp pencils at all desks.

Other necessary items of desk equipment are: A pair of 8-inch straight shears, a 15-inch brass-edge ruler, a No. 300 $\frac{3}{4}$ by 6 inch Starrett Steel Scale and a Sanford's Photo Paste Bottle with a special paste brush at least $\frac{5}{8}$ inches wide, the brushes usually furnished with photo paste bottles being too small. A supply of library paste in large jars should be kept in the department and an office boy or a

* Boston Specialty Corp., New York.

clerk should fill the photo-paste bottles daily and renew the water in the paste-bottle "wells." Paste bottles should be kept closed when not in use, and in any case should be closed at the end of each working day.

A piece of cheesecloth about twice the size of an ordinary pocket handkerchief is also necessary on each desk to absorb the paste which squeezes out around the edges of the clippings when they are pasted on the manuscript sheets. A dozen yards or more of cheesecloth should be available to afford renewal of "paste rags."

All written matter on the manuscript, notes, sources of cuts, information, etc., not to be printed, should be encircled, and as neatness is desirable, a set of five nickel-plated iron washers may be used as "circle rings." Common iron washers of the following sizes, $\frac{7}{8}$, 1, $1\frac{1}{8}$, $1\frac{1}{4}$, and $1\frac{3}{8}$ inches, may be sent to a plater's and nickel-plated and each desk furnished with a set. Instead of free-hand circling the note, or (a neat but slower method) using a coin to guide the pencil, or a compass, a circle ring of sufficient inside diameter to surround the note is placed over it and a pencil mark, guided by the inside edge, may be made with great rapidity, a neat circle around the note being the result. The "circle rings" should be hung on hooks or tacks on the edge of a shelf or on a wall adjoining each desk.

A bowl of pins, a bowl of assorted rubber bands, an Erasit or other "soft" pencil-eraser and an ink eraser should also be a part of each desk's equipment.

Scratch-paper should be kept at each desk fastened to an upright of the desk, drafting-room fashion, by means of a wire nail or hung on a stick file. This is the only practical way to keep scratch-paper, of which a large supply is necessary in catalogue-compiling. Scratch-paper kept in pads or in piles on the desk occupies valuable desk space and is often covered up with other papers, etc., when most wanted.

Telephones enabling both internal and external communication of the best time-saving nature are, of course, absolutely necessary as a part of the equipment of all except the most subordinate desks.

Manuscript may be quite satisfactorily compiled in handwriting, but typewritten manuscript is much neater and much easier to review. Visible wide-carriage typewriters, with carriages wide enough to receive the manuscript paper, are necessary, if the manuscript is to be typewritten. The number of machines required will depend upon the magnitude of the work. Wide-carriage machines will receive ordinary letter paper as well as wide paper up to their capacity, so that, unless the correspondence of the department is voluminous, the stenographer should be provided with a wide-carriage machine, thus enabling this typewriter also to be used in compiling manuscript. It is possible to become so expert as to be able to compile by dictation, as will be explained later.

Another item of equipment is a 3-inch reducing glass, one of which will probably be sufficient in the department. The reducing glass is used to determine the appearance of illustrations (cuts) which it is desired to reproduce in a smaller size; that is, to "reduce." The department should also be provided with a $2\frac{1}{2}$ -inch magni-

fying glass, which will serve to determine the appearance of cuts which it is desired to enlarge.

Several index boxes for 5 by 3 inch index cards are necessary to provide receptacles in which to keep reference-catalogue index cards and classified index cards.

No. 350 plain white 5 by 3 inch "blank" cards will be found satisfactory for index cards.

A set of "200 sub" alphabetical index 5 by 3 inch guide cards will be found sufficiently large for use in the reference-catalogue index, if the number of reference catalogues exceeds one thousand. If one thousand or less, a "100 sub," or possibly a "50 sub," is large enough.

The terms "200 sub," etc., mean the number of alphabetical subdivisions provided for by means of guide cards so marked as to cover a certain range, this result being obtained by using not only the first letter of the word to be indexed, but paying attention to the succeeding letter or letters, as, for instance, in a "200 sub" the first guide card would read "Aa"—"Ac"; the second, "Ad"—"Ag," etc.; whereas in a "50 sub" the first guide card would read "A," the second "Ba—Bh," the third "Bi—Bg," etc.

As it is necessary for the catalogue department to conduct correspondence, obtain special quotations, etc., a two or three drawer vertical correspondence file, equipped with proper guides and folders, etc., and a number of wire filing trays or baskets, should be a part of the equipment of the department.

A No. 1 Eyelet Press for riveting together multipage quotations, etc., though not indispensable, will be found a convenient item of the equipment.

A supply of No. 227 Dennison's Gummed Labels for use as the number labels on reference catalogues, and a supply of yellow gummed labels made by cutting up gummed paper into labels about $\frac{7}{8}$ by $1\frac{1}{4}$ inches for use on surplus reference catalogues, a sponge cup and sponge, and a numbering machine, will comprise the reference-catalogue numbering equipment.

A box of thumb-tacks will be found convenient in the department for attaching enameled duck or oilcloth, heavy paper or blotting pads, etc., to the desks, calendars to the walls, etc.

It is suggested that an examination of the stock of an up-to-date stationery house or filing-cabinet concern be made and information requested. Any modern stationery house will understand all of the above terms applied to stationery, index cards, guide cards, etc.

For manuscript paper, 28-pound chemical double cap manila paper is the most serviceable and economical. The paper should be double the width of the proposed type-page. For example, if the type-page (exclusive of margins) is 7 inches wide, the manuscript paper should be 14 inches wide, including margins. See Plate 9.

The length of the paper will be determined by the number of lines intended to be used on the type-page. For example, if the type-page, exclusive of "running" (decorative) head, is to consist of sixty lines of type, or equivalent of type lines, the

length of the paper should be, say, 14 inches, and ruled with seventy "faint" horizontal lines one-fifth of an inch apart, the tenth line from the bottom being ruled *heavy*. This *heavy* line will indicate the bottom limit, the ten lines below the heavy line being used for notes and for possible overrun, with the idea in view of cutting out some matter farther up the page, to equalize such overrun. Vertical heavy lines about $1\frac{1}{2}$ to 2 inches from either side of the paper should be ruled, such lines serving to indicate the left and the right hand margins, the space between such lines and the edge of the paper being used to insert notes covering sources of information, etc.

In case any compiling is to be done by typewriter, white 24-pound Empire Bond folio paper (or equivalent) may be used. The width of such paper should be the same as the distance between the vertical side lines of the manila manuscript paper, and the length the same as the distance between the top of the manila manuscript paper and the heavy bottom horizontal line. It is unnecessary to have these white sheets so large as the manila manuscript paper, as the white manuscript paper is finally pasted to the manila manuscript paper either in whole sheets or in part, as will be later described, side notes and bottom overrun being provided for on the manila paper.

As it is necessary to prevent manuscript from becoming "dog-eared," torn and "rubbed," the manuscript should be kept in portfolios or folders, which may be made at any bindery as follows: To a base or foundation made of a piece of No. 20 tarboard 15 by 15 inches should be pasted strips of cloth-lined paper 15 inches in width, one strip to each edge, the total length of each strip to be $17\frac{1}{2}$ inches. The strips should all be pasted on the same side of the tarboard, allowing a pasting margin of $2\frac{1}{2}$ inches, which would leave on each edge of the base a flap of cloth-lined paper 15 by 15 inches, the entire folder at this stage resembling an equilineal cross in form. When the margins that have been pasted are dry, the sheets of cloth-lined paper should be folded over, leaving the side of the tarboard on which the pasting has been done as the outside. To make a neater finish on this side, a sheet of 60-pound manila paper $14\frac{1}{2}$ by $14\frac{1}{2}$ inches can be pasted, covering the margins of the cloth-lined paper with the exception of about $\frac{1}{4}$ inch on each edge. The paper side of the cloth-lined paper is usually blue in color, and care should be taken in making up the folder to have the paper side out when the job is finished.

WORKING INSTRUMENTS AND MATERIALS.

Japanned Book Supports.
Eight-inch straight shears.
Medium soft lead-pencils.
Blue colored pencils.
Red colored pencils.
Boston Pencil Sharpener.
15-inch brass-edge rulers.
6-inch Starrett Steel Scales.
Sanford's Photo Paste Bottles.

Jar library paste.
Cheesecloth for "paste rags."
"Circle rings," 1 each, iron washers,
 nickel, $\frac{7}{8}$, 1, $1\frac{1}{8}$, $1\frac{1}{4}$, $1\frac{3}{8}$ inch;
 one set for each desk.
Bowls of pins.
Bowls of rubber bands.
Soft pencil-erasers.
Ink erasers.

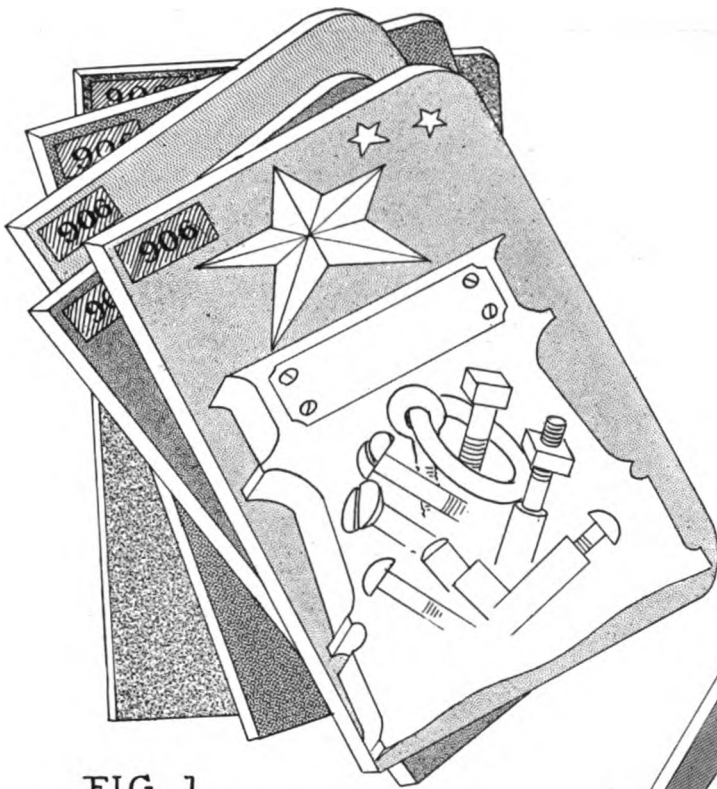


FIG. 1
*Reference Catalogues
and Surplus Copies*

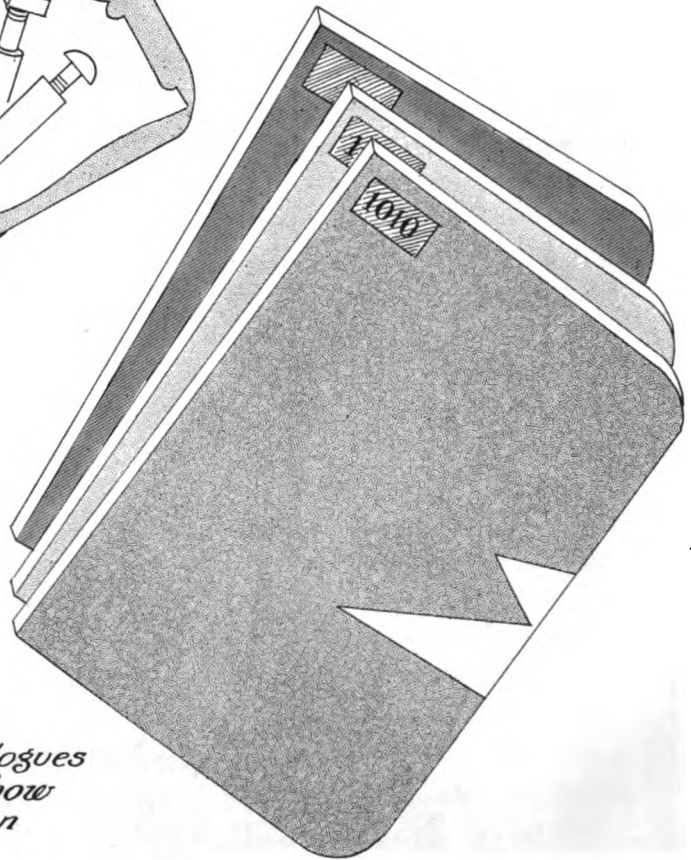


FIG. 2
*Reference Catalogues
Clipped to Show
Mutilation*

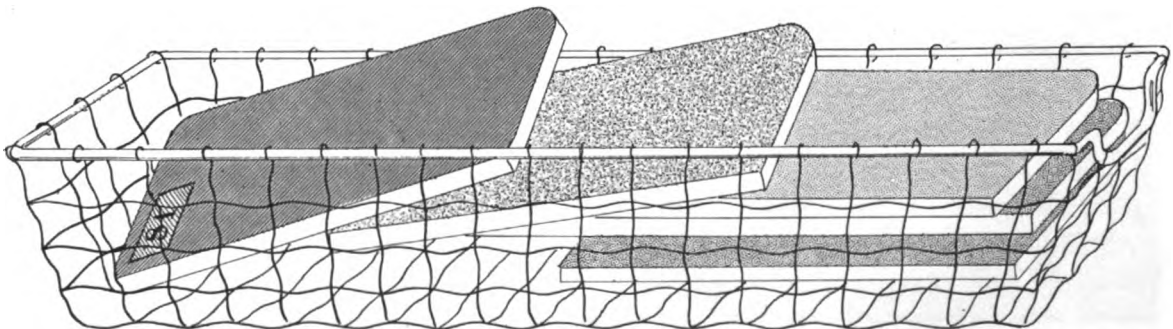


FIG. 3
Reference Catalogues Filing Tray

CHAPTER IV.

REFERENCE CATALOGUES AND LIBRARY.

As the main sources of information are to be found in catalogues* of manufacturers and distributors of the articles which it is intended to represent in the catalogue under compilation, it is necessary to have, in the files, several copies of such manufacturers' and distributors' catalogues. Experience shows that six copies are usually necessary. For example, if two desired illustrations overlap on the reverse side of the same sheet in a catalogue, it is obvious that two such catalogues will be necessary to furnish the "cut clippings" for attachment to the manuscript, and, in case it is found necessary to reproduce such illustrations, two more of the same catalogues will be required to furnish "cut copy" for the photoengraver for reproduction. If six copies are on hand, but two copies are thus left for the files, one for the regular reference file and one for the surplus copies file, later explained. It frequently happens that, due to the revision and change of manuscript, even more than six copies of certain catalogues are required, but it is advisable to limit the number to six copies, as, otherwise, excessive filing space will be necessary. If more than six catalogues of a kind are received the surplus should be discarded, except, perhaps, catalogues representing popular or well-known articles, the surplus copies being kept on shelves reserved for advertising matter, or in other reserved space.

In requesting catalogues, a form letter may be used, stating that a catalogue is about to be compiled, etc., and requesting six copies of the latest catalogues, circulars, etc., covering certain specified articles. These articles may either be named in the circular letter or enclosed in the form of a separate list, the method used being determined by the number of items which it is necessary to enumerate.

When requesting catalogues, etc., price quotations should also be requested, in order to assist in determining the choice between the lines of different manufacturers.

There should be kept a list of the manufacturers and others from whom catalogues, etc., have been requested, and the names should be checked off as catalogues are received. As to sending second letters to those failing to reply, such action should be taken as may be deemed advisable. It may not be worth while to send second letters to many, but in certain cases it will be necessary to use every effort to obtain catalogues.

Catalogues of competitors and of others wholly or partially covering the line, both in the immediate neighborhood and in other localities in the country, and possibly also abroad, should not be overlooked, as many valuable ideas may be derived from such catalogues. It is hardly likely that six copies of such cata-

* The term "catalogue" herein will be understood to apply to catalogues, pamphlets, circulars, booklets or leaflets in the nature of catalogues.

logues can be obtained, but at least one, and more if possible, should be in the reference files.

Through a news agency, or otherwise, careful consideration should be given to different trade magazines devoted to the line in the interests of which the catalogue is to be issued. Subscription to two or more of the best trade magazines will be found to be a paying investment. As the trade journals are received they should be carefully gone over by the catalogue-department corps, new lines and new ideas being noted and properly classified.

It is possible to file catalogues alphabetically, and if the quantity is not large, alphabetical filing will be found fairly convenient, but, irrespective of the quantity of catalogues, a numerical system of filing will enable much quicker finding of catalogues in the file. All catalogues issued by the same house or company should bear the same number or, more properly speaking, the issuer of the catalogue should receive a number, which should be recorded (by typewriter if possible) on a plain white 5 by 3 inch index card* and filed alphabetically in a 5 by 3 inch index box* equipped with an alphabetical sub* of suitable magnitude. In case the list is extensive it may be necessary to have two or more of these index boxes. The indexes should be kept at a convenient central point in the room to enable the most convenient reference by all members of the corps in case it is desired to find the file number of any catalogue in the reference file. Card indexes are now in quite common use and will thus doubtless be familiar to the majority of persons, but any one not familiar with the use of a card index can very quickly learn to use it. In case a catalogue is desired and the name of the issuer of the catalogue is known, reference will first be made to the index and the catalogue will then be found in the reference file by number. The index of reference catalogues constitutes a valuable list and should be kept in a safe or vault during other than working hours, thus enabling duplication of the reference-catalogue files in case of destruction by fire or otherwise.

On the upper left-hand corner of one copy of each catalogue should be affixed a No. 227 Dennison's Gummed Label.* On the same corner of one or more (up to five) duplicate catalogues a yellow gummed label* should be affixed. The number assigned to the issuer of the catalogues should then be written or stamped on the labels of this set of six or less catalogues.

On the shelves or benches assigned to the reference catalogues, about one-fourth of the space should be used for the regular reference-catalogue file and the balance for the surplus catalogue file.† The catalogues to which the No. 227 Dennison's Gummed Labels have been attached will be considered regular reference catalogues and placed in the space assigned to such. These catalogues should not be mutilated, that is to say, clippings removed from same, under any circumstances. In making up manuscript, if a regular reference catalogue is the only copy, reference should be made to this copy on the manuscript. If it is necessary to

* Described in Chapter III.

† See Chapter II.

reproduce a cut from such catalogue, either the reproduction should be made direct from the catalogue, or if the catalogue is "clipped," the clipping should be returned and pasted back in the place from which it has been removed.

Catalogues to which yellow gummed labels have been attached will be considered surplus catalogues and will be placed in the space assigned to same. Identical copies of surplus catalogues should be kept together in packages by means of rubber bands, an assorted supply of which should be available for the purpose.

Both regular reference catalogues and surplus catalogues should be filed in numerical order, resting on their front edges, and in both instances the catalogues should be separated into "Large" and "Small" classes, as described in Chapter II, and filed on the shelves assigned to "Large" and "Small" catalogues respectively.

As above indicated, the surplus catalogue file is intended for use in furnishing clippings, both of illustrations and of printed matter, to be attached by pasting to the manuscript. Unless mutilated so badly as to be practically useless, catalogues should be returned to the reference-catalogue file whether mutilated or not, but in order to distinguish mutilated from uncut catalogues the covers should be clipped in two or three places, removing a V-shaped clipping, allowing one of the white pages to show through this V-shaped place in the cover.

It should be the duty of one clerk to replace all catalogues in the file. When reference to catalogues has been completed, or such matter removed from surplus catalogues as is desired, the catalogues should immediately be placed in a filing tray and not allowed to remain on shelves or desks. All such catalogues should be placed in the file the first thing every morning, as further reference may be shortly required. It should also be remembered that when a desired catalogue is not found in the file it may possibly be found in a filing tray, awaiting filing.

As received, all catalogues (as well as letters, quotations, etc.) should be stamped with a "Date Received" stamp, thus creating a means of distinguishing and describing similar catalogues of the same issuer. This is important when noting sources of cuts, information, etc., on the manuscript, and also enables the determination of latest catalogues, as catalogues are rarely dated by the issuer.

It may be remarked, in passing, that the issuer of catalogues should print the date of issue on the title-page. As catalogues are coming, more and more, to contain original matter, it is advisable to obtain a copyright, as the cost of copyright is nominal. In this case, as copyright notice is always dated, this will serve to indicate the "date of birth" of the catalogue. Copyright is obtained by filling out a form and filing therewith two copies of the last issue of the book with the Librarian of Congress, at Washington, D. C. Most patent attorneys also attend to copyright matters, and application for copyright should be made through an attorney who understands the procedure. On a preliminary page, usually the page succeeding the title-page, the copyright notice should be printed, thus, for example:

Copyright, 1900.

By West & Long Co.

It will be noted that the word "copyright," and not the word "copyrighted," is used, as the book can not be said to be copyrighted until certificate of copyright has been issued.

It is advisable to have a shelf or two of reference-books, conveniently available to the desk of the department manager. This library should at least contain a dictionary and, if the catalogue is to be of a general nature, it may be convenient to have an encyclopedia on the shelves. Wherever there are any special reference-books applying to the line represented by the catalogue under compilation, this reference library should contain such books. For example, in compiling a catalogue of motor-vehicle supplies, machine-shop supplies, etc., the author found following or similar books necessary:

Cyclopedia of the Automobile.

Cyclopedia of Shop Practice.

Motor Car Operation.

Audel's Answers on Automobiles.

Brooke's Automobile Hand Book.

Haswell's Mechanics' and Engineers'
Pocket-Book.

Trautwine's Engineer's Pocket-Book.

Kent's Mechanical Engineers' Pocket-
Book.

Hawkins' Mechanical Dictionary.

CHAPTER V.

STRUCTURE OF THE CATALOGUE.

HAVING prepared working quarters, equipped the same with working instruments and materials, and having completed files of reference catalogues and surplus catalogues, the next step should be to make a *general outline* of the proposed catalogue.

It is advisable to commence making the general outline as soon as form letters requesting catalogues have been sent out, as all through the process of compiling it will be found that further catalogues will be required. These catalogues may either be requested on a form letter or by special letter, according to the case in hand.

In making a general outline of the proposed catalogue the first step is to classify the articles which it is intended to catalogue into different divisions or departments. For example, in compiling the motor-vehicle supplies catalogue referred to in Chapter II, those divisions specifically applying to motor vehicles were preliminarily arranged as follows:

Tires and tire accessories.	Lubricating devices.
Running-gear parts.	Ignition supplies.
Body accessories.	Lighting supplies.
Engine and transmission accessories.	Sundry motor-car accessories.

It will be noted that the logical order of these divisions or departments was determined by the consecutive location of various parts, commencing with that portion of the motor vehicle which rests on the ground, namely, the tires. It is impracticable to follow an absolutely logical grouping in all instances, and an example of this seeming exception would be the inclusion, in the division of "Motor Vehicle Tires and Tire Accessories," of tire-vulcanizing shop equipment and vulcanizing materials.

In that portion of the motor-vehicle supplies catalogue particularly devoted to shop and garage supplying, the divisions were:

Bolts, nuts, screws, etc.	Power and transmission machinery.
Miscellaneous shop supplies.	Iron, steel and metals.
Machinist and blacksmith tools.	Garage supplies.
Machines and machine incidentals.	

It will be noted that the catalogue referred to was divided into two general parts, one part applying to constituent parts of the motor vehicle proper, and the other part to materials and supplies in general demand in automobile machine shops and garages.

The logical sequence of divisions will also be noted.

When the divisions of the catalogue and their logical consecutive order have been determined, the next step is to place the name of each division on a 5 by 3 inch guide card, to arrange the guide cards with the tabs thereof in successive order

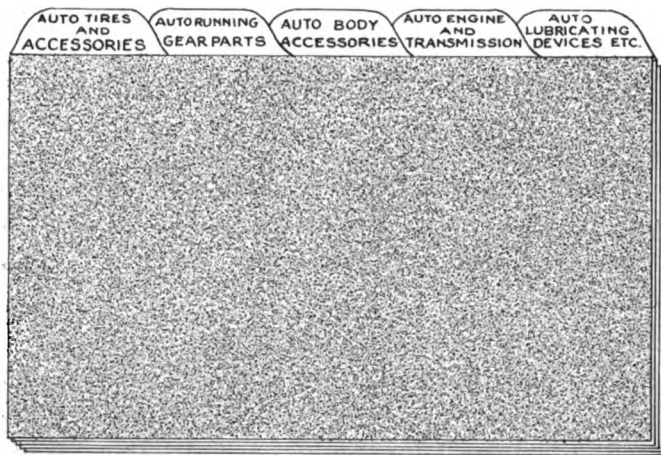


FIG. 1
*Classified Index
 Division Guide Cards*

403
E

Lathes.
 (Foot Power & Belt Driven)

Chas. A. Mann.....	2074
The Robbins Machine Co.....	2075
I. H. Johnson Jr. Co.....	2090
Greaves, Klusman & Co.....	441
Lodge & Shipley Machine Tool Co.....	571
W.P. Davis Machine Co.....	1191
New Haven Mfg. Co.....	1193
South Bend Machine Tool Co.....	1240
Bradford Machine Tool Co.....	1385
Pratt & Whitney Co.....	801

FIG. 2
Classified Index Cards

1155

85

Cir

Ajax Trunk and Sample Case Co
New York, N Y

FIG. 3
*Classified Index Cards
 Alphabetical-Numerical*

of divisions, if possible, and to place such set of guide cards in a 5 by 3 inch index box. A properly equipped file is thereby provided for the receipt of the cards described in the next process.

This process will consist of running through all sources of information, such as stock lists, inventories, former catalogues, competitors' catalogues, manufacturers' catalogues, trade journals, etc., and writing the name of each item, which may possibly be included in the proposed catalogue, on separate plain-white 5 by 3 inch index cards. After a number of these cards have been written, the division or department in which each item is to be located should be determined and the cards filed in front of the guide cards indicating divisions. No attention, at first, need be paid to the order of the cards so filed. After the process of listing items on index cards has been completed or nearly completed, each division should be taken separately and the individual cards arranged in as nearly logical consecutive order as possible. The cards should, however, be repeatedly examined, by more than one person if possible, with the idea in view of arranging them in logical consecutive order.

The matter of logical consecutive order of *items* may in many instances be largely a matter of opinion. The logical consecutive order of items in the division of "Motor Vehicle Tires and Tire Accessories" above referred to was finally settled as follows:

Pneumatic tires.	Tube patches, etc.
Wheel rims for pneumatic tires.	Cold patching kits and agents.
Non-skid devices.	Inner-tube accessories, etc.
Skid chain tongs, etc.	Pneumatic tire valves, etc.
Inner tubes.	Tire-valve tools, etc.
Inner-tube bags.	Portable tire inflators.
Veeder Odometers.	Hand tire pumps.
Spare-tire brackets.	Engine-driven tire pumps.
Locking tire-brackets.	Tire-pump tubing, etc.
Spare-tire holder sockets.	Tire-pump connectors.
Spare-tire covers.	Motor-vehicle solid tires.
Tire cases and trunks.	Motor-vehicle solid-tire accessories.
Tire tools.	Portable vulcanizers.
Emergency sleeves, patches, etc.	Vulcanizing-shop equipment.
Patching cements, etc.	

It will be noted that, in the instance cited, the order is to some extent natural and to some extent arbitrary, that is to say, a matter of opinion.

It will be well to give a great deal of attention to the *general outlining* of the catalogue before proceeding with the work, as the proper outlining or "skeletonizing" of a catalogue in advance will constitute practically twenty-five per cent of the "heavy" work, and may be considered as the foundation which, when properly completed, will support a satisfactory structure. Furthermore, the general train-

ing and education derived from careful general outlining will prove to be of great value in the subsequent preparation of manuscript.

At the time the classified index cards are written, as above explained, the source of information of items should be noted. If the information is derived from a catalogue in the reference files, the file number of this catalogue should be noted opposite its name. This will enable the quick finding of the catalogue in case of desired reference when subsequently examining a classified index card, and reference to the alphabetical index card of reference catalogues will thus be obviated.

The first writing, and the subsequent revising of general outline index cards, should be performed by hand with pencil. After the cards, however, have been fairly well "boiled down," they should be typewritten.

As catalogues are received, and before filing them, the general outline cards representing the contents of such catalogues should be removed from the classified-index box and the names of the issuers of the catalogues entered on the proper classified index cards together with the file numbers of such catalogues, unless, of course, the entry has been previously made.

In other words, by reference to the classified index, the names of the manufacturers of all articles represented in the reference file should be listed under each article, together with the file number of the catalogues of each manufacturer.

All items classified under each department or division should be still further subdivided into stock groups, each stock group receiving a number. In case it is possible that subsequent stock groups may be added, one or two stock group numbers should be skipped at the proper place. For example, let us suppose that the first division or department in a catalogue will consist of machinist and blacksmith tools; the first items appearing might be anvils and occupy, let us say, the first four pages of the division. Anvils would therefore be Stock Group 1. As it is advisable to place the page number of the catalogue at the upper outside corner of the page, the most convenient location for the stock-group number is at the *lower* outside corner, being distinguished either by a printer's section mark (§) or by the letter G for group or S. G. for stock group. For that matter, the word "Group" might be printed in front of the stock-group number, which in the instance of anvils would appear at the lower outside corner of each of the four pages of anvils as "Group 1." The next item might be vises, occupying three pages, and at the lower outside corners of such three pages would appear "Group 2." Now let us suppose that, at some future time, a line of hand vises might be added, but not at the present time carried as an item of merchandise, and consequently not catalogued. "Group 3" would, therefore, not appear, and the next group, say anvil tools, would be numbered "Group 4" and might occupy two pages, following which would be one page of blacksmith tongs, "Group 5," two pages of hammers, "Group 6," and so on.

In determining stock groups, careful attention should be given to possible subsequent additions of stock, and, in case of doubt, numbers should be omitted to allow

for such subsequent addition. Furthermore, at the end of each department or division, at least ten numbers should be skipped, or possibly more if large additions to the department are probable. There is no objection whatever to skipping numbers. Some issuers of catalogues follow the practice of even skipping page numbers to allow for subsequent additions, and there is much in this system to commend it.

It is not advisable to commence numbering stock groups anew with each department. The numbers should be carried right through the catalogue, omitting, as above stated, ten or more numbers at the end of each department.

Before finally determining on the general outline, and before final assignment of stock-group numbers, in case it is desired to represent in the catalogue any merchandise not in stock, samples of such merchandise should be obtained and examined. Furthermore, it may be advisable to apply tests. For example, if the merchandise is mechanical or semi-mechanical, unless the articles have been elsewhere tested and proved, actual trials should be made. The author has encountered three different experiences in this connection: Selection of inferior or impractical articles on account of failure to test; acceptance, after test, of articles condemned on examination without test; and rejection, after test, of articles to all appearances satisfactory. In view of the relatively expensive nature of catalogue work, it will be appreciated that it is necessary to be certain of the merits of every article to which a place is given in the catalogue.

Another important consideration is the possibility of cataloguing items not carried in stock, and which may never be carried in stock. For example, the line may contain a number of specialized machines, carried in stock, in connection with which it is necessary to use various forms of power and transmission machinery, the power machinery being electric motors and internal combustion engines, and the transmission machinery being pulleys, shafting, pulley bushings, collars, shaft couplings, etc. As the items of power machinery represent a special line, it will doubtless be better to make arrangements for obtaining these items, with which to fill orders, from an outside source, especially if such outside source of supply is convenient. The items of transmission machinery contain such a large number of sizes and styles that it would be better to pursue the same course also in this case. However, unless familiar with such items of power and transmission machinery, samples of the same should be examined, at the sample-room if not too bulky, and if too bulky, wherever examination may be possible.

When examining samples, information should be obtained, unless it is furnished by the manufacturer, to cover *packing and weights*, and notes of the method of packing and of the weights of items made and filed in the general correspondence file under the manufacturer's name, for subsequent use in compiling. Information as to packing and weights should, it goes without saying, be included in the catalogue, if possible. It is frequently very troublesome to obtain this information, but it is self-evident that such information is valuable, not only to the issuer of the catalogue, but to all persons subsequently referring to the same with the possibility of purchase in view.

Another important point, to which careful consideration should be given, is that of completeness of special lines. Wherever possible, a "line" should be purchased from one manufacturer instead of buying isolated items of the same line from different manufacturers. This not only promotes ease of cataloguing, but makes everything easier all the way through—in stock departments, in sales departments and in purchasing departments. There are many reasons, among which may be named: Possible interchangeability, uniformity of style and appearance, completeness, better service by the manufacturer on account of larger total purchases, ease in checking bills, and so on. Of course, it may sometimes be necessary to depart from this rule, but before doing so it will be advisable to communicate with the manufacturer with the object in view of persuading him to meet the necessity which prompts the possible departure, and if he is unable or unwilling to do so, at least to give his reason a hearing.

CHAPTER VI.

CATALOGUE-OUTLINING.

CATALOGUE-COMPILING may be performed unassisted by preliminary outlining. Before, however, undertaking any form of construction, whether railroad, bridge, or book constructing, it is necessary to make a plan, if satisfactory work is to be accomplished. When "constructing" a book (and a catalogue is one form of a book), two kinds of plans may be said to be necessary, corresponding roughly to what engineers designate as general plans and details. The general outline described in Chapter V corresponds to the general plans, and the outlining described in this chapter corresponds to the details.

Practice will develop rapidity in outlining, but it will be advisable at first to outline a few sheets, and then practice compiling from such sheets as are described in Chapter VII, the next chapter.

Much time can be saved by using a printed outline sheet, the suggested form being shown in Plate 8. This outline sheet assumes the standard form of page structure, four illustrations to the page. In case this form is varied, for example, to six illustrations to the page, two outline sheets may be used, being pasted together at the side margins, with one row of squares showing on one sheet and two on the other. If eight illustrations to the page are used, two outline sheets may be pasted together at the margins, thus creating a double sheet. In case there is a variation from the *balanced* form of page, which the use of the outline sheets assumes, it is advisable to use a blank sheet of paper as an outline sheet, "sketching" in the position of the cuts (illustrations) and printed matter.

By reference to the outline-sheet form it will be noted that the first two squares at the top of the page contain heavy marginal lines, and in the two margins is printed the word "Cut." The two squares are exactly alike and assume the placing of two illustrations side by side.

Underneath the squares representing the cuts will be noted the parenthesized word "Cut Caption" over a single line. This refers to the general name of both articles appearing on the two cut squares above, and the sub-cut captions to the specific names of the cuts. For example, the cut caption might be "Hand Oil Cans," the two sub-cut captions of which might be "Copperized" and "Zinc," respectively. It sometimes happens, however, that a general name can not be applied to the two illustrations. For example, if illustrations of fire clay and fire brick are placed side by side, the sub-cut captions would both become main cut captions and the space for the main cut caption would not be filled in, a pencil line being run through the word "cut caption."

The word "Source" in the cut square refers to the catalogue from which the illustration is to be taken, if taken from a catalogue, and a space on the outline sheet is provided for designating said catalogue, as well as spaces for No. or size, etc., whereby the cut selected may be identified. For example, Winters, Abbott &

CUT

SOURCE:—Pictorial Catalogue Page_____

Other Catalogue_____

" " Page_____

No.—Size _____

TREATMENT: S. S. _____ off

ELIM:—Mfr. Name—All lettering

(Sub-Cut Caption)

SOURCE:—Pictorial Catalogue Page_____

Other Catalogue_____

" " Page_____

No.—Size _____

TREATMENT: S. S. _____ off

ELIM:—Mfr. Name—All lettering

(Sub-Cut Caption)

(Cut Caption)

CUT

LIST ETC

SOURCE:—Same as cut.

Other Catalogue_____

" " Page_____

Full List

Nos.—Sizes _____

Non-committal.—Committal

SOURCE:—Same as cut.

Other Catalogue_____

" " Page_____

Full List

Nos.—Sizes _____

Non-committal.—Committal

LIST ETC

CUT

SOURCE:—Pictorial Catalogue Page_____

Other Catalogue_____

" " Page_____

No.—Size _____

TREATMENT: S. S. _____ off

ELIM:—Mfr. Name—All lettering

(Sub-Cut Caption)

SOURCE:—Pictorial Catalogue Page_____

Other Catalogue_____

" " Page_____

No.—Size _____

TREATMENT: S. S. _____ off

ELIM:—Mfr. Name—All lettering

(Sub-Cut Caption)

(Cut Caption)

CUT

LIST ETC

SOURCE:—Same as cut.

Other Catalogue_____

" " Page_____

Full List

Nos.—Sizes _____

Non-committal.—Committal

SOURCE:—Same as cut.

Other Catalogue_____

" " Page_____

Full List

Nos.—Sizes _____

Non-committal.—Committal

LIST ETC

Co., page 121, No. 47. In this instance the word "size" would be scratched out. The particular illustration in Winters, Abbott & Co.'s catalogue No. 47 might be identified, however, by size as, for example $1\frac{1}{2}$ inches, in which instance the word "No." on the outline sheet would be scratched out.

If possible, it is advisable to obtain the cut of the illustration from the manufacturer. It may, however, not be possible to obtain the cut, or the cut, when received, will be found unsuitable, and if this is the case, it will be necessary to send a "cut clipping" to a photoengraver for the purpose of reproduction, to cover which case the last two lines in the square are provided. That is to say the "Treatment" of the cut in reproduction by the photoengraver will either be "S. S.," or a certain amount "off." "S. S." stands for "same size," and in the blank space before "off" will be inserted $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$, etc., "off," if the illustration is to be made smaller. For example, if an illustration is 4 inches wide and it is desired to make it 3 inches wide, it will be $\frac{1}{4}$ off; if an illustration is 3 inches wide and it is to be 2 inches wide, it will be $\frac{1}{3}$ off, or if half the size, $\frac{1}{2}$ off, and so on.

It is occasionally possible that it is desired to enlarge a cut. This process is not so easy as reducing, but it is possible, and information can be obtained from a photoengraver as to how much enlargement may be made in the case of each cut that it is desired to enlarge.

Furthermore, it is frequently desired to have a drawing made; in this case the abbreviations "S. S." and "off" may be scratched and the word "Drawing" inserted in the blank line. Again the cut may require alteration or "doctoring"; and if such is the case the abbreviation "Dr." may be inserted in the blank line. In case more detailed memorandums covering the proposed drawing or concerning alterations or "doctoring" are necessary, "over" may be written in the treatment space and such notes made on the reverse side of the outline sheet.

The last line in the square refers to eliminations of names and of alterations in the reproduction of cuts. It is frequently desired to eliminate the manufacturer's name, only leaving such other lettering as may be found on the illustration, in which case the words "All lettering" will be scratched. If, however, all lettering is to be eliminated, the words "Mfr. Name" will be scratched.

It will be well to remark, at this point, that, in case a catalogue is covered by copyright, it will be necessary to obtain the permission of the publisher of such copyrighted catalogue in case it is desired to reproduce any *original* illustrations contained therein. On the contrary, any illustrations which are *not* original with that publisher may be reproduced. Also it sometimes happens that the illustration, even if not original, represents a patented article, the patent being still in force, and that the word "patented" is printed either on the illustration or in the matter referring to such illustration. In that case it will be necessary to repeat the words referring to the matter of patent in order to comply with the patent laws.

Method of treatment of cuts is more specially explained in Chapter X, "Catalogue Illustrations."

Again referring to the outline-sheet form, it will be noticed that the next two squares are surrounded by light lines, and refer to "Lists" and to printed matter. If the source is the same as cut source, a check mark is placed opposite the words "Source: same as cut." If the source is not the same, the next two lines will be utilized, to indicate the source, in the same manner as the corresponding lines in the "cut" squares are used.

If the full list, that is to say all of the sizes, numbers, etc., of the article, are to be inserted, a check mark will be placed opposite the words "Full List"; and if not, insert the numbers or sizes following the words "Nos.—Sizes"; if numbers, scratch out the word "Sizes" and if sizes, scratch out the word "Nos."

In illustrating a line of merchandise it may be desirable to use the name of the manufacturer of that line, if such a name carries weight with it, and it is intended to continue to carry such line indefinitely. If this is the case, the cataloguing of such line of merchandise will be termed "Committal," and the word "Non-committal" on the last line of the "List" square scratched. If, however, the reverse is the case and the line is such a general one as to derive no advantage from the name of the line, the cataloguing would be termed "Non-committal," which word on the outline sheet would be allowed to stand, and the word "Committal" scratched.

The lower squares are simply a repetition of the upper squares, and the right and left hand squares are alike and are similarly treated.

The form of outline sheet above described is submitted as a suggested form only, and, of course, may be greatly improved upon. If it does not fit the case, a suitable outline sheet may easily be devised. A good way of developing a suitable outline sheet is simply to use blank paper, make "sketches" of the proposed pages, insert the information as to sources of cuts, information, etc., and, after such form of sketching has finally crystallized, develop it into a suitable outline sheet.

As above suggested, it is advisable to outline a few sheets by following the general outline, but picking out certain pages which seem the easiest to the outliner. After a few pages are outlined, proceed to compile. It may be well at first to practice what may be called "rough compiling," that is to say, do not attempt to produce a perfected manuscript sheet. The illustration ("cut") clipping may be pasted on or, in lieu of this, a space simply left for a cut, such reserved space being indicated by a square outlined with a pencil. After the manuscript sheet is worked up to satisfaction, a final or perfected sheet may be produced therefrom.

The relations between the outliner and the compiler or compilers will depend largely upon the magnitude of the task. One outliner can keep at least two compilers busy. It is, of course, necessary that the outliner thoroughly understand the line, or at least understand enough of it to enable him to fairly grasp all the facts concerning any additional items, upon examination of the catalogue matter relating thereto and upon examination of the articles themselves.

It is not necessary that compilers have so thorough a knowledge of the line, but the compilers should have some knowledge of merchandise, some commercial experience, and they *must have* at least an academic education. Good catalogue work

can not be performed by a compiler having less than a high-school education or its equivalent, as it is necessary to be able to use good language, correct grammar and proper spelling, coupled with the methods resulting from proper mental training.

However, as referred to in the succeeding chapter, matters of general information and description may be inserted by the head of the department, if such department-head is himself able to insert such information in a clear, concise and convincing manner.

Even if the concern for which the catalogue is made is a large concern, in starting the work it is advisable to have a small force, consisting, let us say, at first, of the manager of the department, an assistant and a stenographer, or possibly even doing without assistant or stenographer. The manager and his assistant should perform both outlining and compiling and, after this work has proceeded sufficiently to thoroughly familiarize him and his assistant with the process, the force may be added to, one at a time, each additional member being thoroughly instructed and trained in his particular work. In case the initial members of the department have found it profitable to read this book, it will doubtless prove equally profitable to each new member of the department, and it might be well to direct, as a part of the work, a thorough study of the book, with the object in view of subsequently questioning the student to see how well he understands it. There should, however, be supplementary instruction and training, as all persons are not students, and it may be possible that the initial members of the department themselves have not mastered the book without practicing outlining and compiling, and an equal opportunity should be afforded to each new member of the department.

As outline sheets are made, they should be recorded. In the upper left-hand corner of the outline-sheet form (Plate 8) the word "Recorded" is printed, and, as the sheets are recorded, a check mark should be placed in front of this word on the outline sheets. The record may be made either on cards, kept in a card-index box, or on sheets in a loose-leaf book, and such record cards or record sheets should be placed in the order in which they are intended to appear. This recording is necessary for two reasons, one of which is that outline sheets may become lost or misplaced, and, second, it is necessary to have a record of the *order* in which it is proposed that the pages of the catalogue appear. This order of pages is, of course, open to subsequent change; for which reason cards or loose-leaf sheets and not a bound book should be used. *It should be remembered, however, that if a change in the order of stock groups is made the stock-group numbers will also require alteration.**

It will also be noted that a line appears at the top of the outline sheet. This is reserved, as indicated in parenthesis thereon, for the page caption. A moment's thought will show that the page caption will also be the name of the stock group. For example, if we revert to the explanation of stock groups in Chapter V, the page captions will be seen to be the same as the various stock groups named, that is, anvils, Group 1; vises, Group 2; hand vises, Group 3; and so on.

* See Chapter V for description of Stock Group Numbering.

CHAPTER VII.

CATALOGUE-COMPILING.

CATALOGUE-COMPILING should be performed, a page at a time, with an outline sheet for each page as a guide. As remarked in Chapter VI, compiling may be done unassisted by any plan or outline, but the best work is accomplished when it is "laid out" in advance.

Of utmost importance is the manuscript paper, the kind and form of manuscript paper recommended being described in Chapter III. As there stated, 28-pound chemical double cap manila paper twice the width of the proposed type-page should be used. See Plate 9. For example, if the type-page (the page exclusive of margins) is to be 7 inches wide, the manuscript paper should be 14 inches wide, including margins. The length of the manuscript paper should be determined by the number of lines which it is intended to use on the type-page. For example, if the type-page, exclusive of "running" (decorative) head would, when filled from top to bottom with the body-type adopted, consist of sixty lines of type (intervening spaces being counted as equivalents of type lines), the length of the paper should be, say, 14 inches, and should be ruled with seventy "faint" horizontal lines 1.5 inch apart. The tenth line from the bottom should be ruled "heavy," this line indicating the *bottom limit of the type-page*. The ten lines below should be used for notes and for possible "overrun," with the idea in view of subsequently cutting out some matter further up the page to equalize the overrun. Vertical heavy lines about 1½ to 2 inches from either side of the paper should be ruled, such lines serving to indicate the left and the right hand margins. The space between such lines and the edge of the paper should be reserved for the insertion of notes covering sources of information, etc.

The *width* of the manuscript paper, being double that of the proposed type-page, will about take care of the relative difference in width of either typewriting or average long-hand writing, and printing type, and the *length* will be taken care of by the number of lines, as stated. In compiling, *the manuscript should never be measured or the amount of space apparent to the eye taken into consideration*. For instance, let us suppose that ordinary eight-point type is used. This type, as ordinarily set for catalogue work, will occupy about seven lines to the inch. As each faint line on the manuscript represents the equivalent of one line of type, it is evident that seven faint lines on the manuscript equal 1 inch.

Now, let us say that a cut (illustration) 2 inches in height is to be clipped out of a catalogue and pasted on a manuscript sheet. Three lines from the top of the page will first be allowed for the page caption. One line will then be counted as the space between the page caption and the cut. Fourteen lines (twice seven, equaling 2 inches, the height of the cut) will then be set off to allow the theoretical space for the cut. The cut clipping, having been trimmed neatly, will then be pasted at the proper place on the manuscript sheet, with the *bottom of the cut even with the lowest of the fourteen lines laid off*.

However, in determining the space occupied, let us assume the standard form of a two-column page, under which circumstances it is self-evident that *both cuts* must be taken into consideration. One of the cuts may be higher (taller) than the other. The amount of space occupied will be determined by the taller cut. The bottom of the cut will balance the taller cut if the smaller of the two cuts is placed on the same horizontal line, and the space is allowed above rather than below the cut, in the majority of instances. Of course, it sometimes happens that disproportion in the size of the cuts requires that some space also be allowed at the bottom, it being necessary to determine this point as the individual instances arise. Below the cuts one line will then be omitted for space and the "sub-captions" of the cuts inserted in the next lower line. Another line will be omitted and the "caption" of the cuts inserted, and then after another omission of a line there may be inserted line for line the descriptive matter, etc., as explained below.

It will thus be seen that, if this system is carefully followed (and a little practice will enable its pursuit with ease), the determination of the amount of space occupied on a page will be automatic.

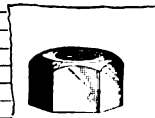
It should again be repeated, in order to impress the importance of the fact, that *this system of manuscript compiling is based upon an enlarged scale system*, the same idea being employed as in the case of making drawings or plans, except that, when plans or drawings are made, the scale is usually a reduced one. For example, for every foot of the actual object, perhaps $\frac{3}{4}$ inch may be used on plans or drawings; whereas in the case of manuscript compiling, for every 1 inch in width of type-page, something approaching double that unit is used on the manuscript sheet, and for every line of type on the page, about double the vertical space is used on the manuscript. An enlarged scale is used and this fact must be taken into consideration, *and the mistake of taking actual space occupied on the manuscript will not be made.*

It is a common error among catalogue makers to crowd on to one page of manuscript what it is expected that one page of set-up type matter will contain. One of the very material added costs of catalogue-printing is the work of rearranging pages. Experienced catalogue-page arrangers are employed by printing houses making a specialty of catalogue-printing, and this work of a high-priced man, being taken into consideration in the printing of the catalogue, increases its cost. All of this can be obviated at the start by using properly scaled manuscript sheets, as above described.

Manuscript may be made exact size by hand, but, as will readily be seen, this requires that small letters and figures be used, a laborious and expensive process as well as an unnecessary one.

Plates 10 and 11 illustrate a manuscript sheet, together with the catalogue page printed therefrom. By the comparison, it will be noted that none of the marginal pencil notes appear on the latter. These marginal pencil notes cover the sources of cuts and all information, treatment of cuts, etc. All matter placed on manuscript

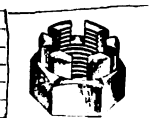
C.R

No. 10
CATALOG
P. 32
FULL
ELECTROP.C.
I.

NUTS



P. 61



5 208

700
NELSON
REG. CO.
910
CAPTIVE
P. 15

= SEMI-FINISHED, HEXAGON = ASSORTED, CASTELLATED = MILLED AND TURNED, CASTELLATED
A.L.A.M. STANDARD NUTS =

THREADED =

(- 3/675 - - -)

BOLT,	WIDTH,	THICK,	HOLE,	THREADS,	PER	BOLT,	WIDTH,	THICK. OVER ALL,	WIDTH	DEPTH	THREADS	PER
IN.	IN.	IN.	IN.	PER IN.	100	IN.	IN.	IN.	IN.	IN.	PER IN.	100
1/4	1/2	1/4	3/64	28	\$ 2.00	1/4	3/8	9/32	5/16	3/32	28	\$ 3.00
5/16	9/32	5/16	1/4	24	2.50	5/16	1/2	13/32	5/16	3/32	24	3.75
3/8	11/16	3/8	19/64	24	3.25	3/8	9/16	13/32	1/8	1/8	24	4.75
7/16	1 1/8	7/16	11/32	20	3.75	7/16	1 1/8	1 1/8	1/8	1/8	20	5.50
1/2	1 1/4	1/2	13/32	20	4.50	1/2	1 1/4	1 1/4	1/8	1/8	20	6.75
5/8	1 3/8	5/8	1 1/8	18	6.50	5/8	1 3/8	1 3/8	1/8	1/8	18	9.75
3/4	1 1/2	3/4	1 1/8	16	8.50	3/4	1 1/2	1 1/2	1/8	1/8	16	12.75
						7/8	1 5/8	1 5/8	1/8	1/8	14	18.00
						1	1 3/4	1 3/4	1/8	1/8	14	26.35

* Assorted, 5/16 to 5/8 inches, inclusive, per box, (15) \$0.50 - No Block

The Association of Licensed Automobile Manufacturers (A.L.A.M.), adopted a certain standard of thread, (so many threads per inch), as differing from other standards. The above illustrated (Semi-Finished), (Plain Nut) and the (Milled and Turned, Castellated Nut) are both threaded A.L.A.M. Standard. The Castellated Nuts, it will be noted, are of a different style from the Castellated Nuts shown at the bottom of the page, the former style being one specifically adopted by the Association of Licensed Automobile Manufacturers.

P.C.
I.P.C.
I.

STANDARD THREADED =

BLANK =

CASTELLATED NUTS, SEMI-FINISHED

THICKNESS

(- - - SLOTS - - -)

BLANK

(- - - THREADED - - -)

BOLT,	WIDTH	THICKNESS	WIDTH, DEPTH,	PER	THREADS,	PER
IN.	IN.	OVER ALL,	IN. IN.	100	PER IN.	100
1/4	1/4	1/4	3/32 3/32	\$ 2.40	20	\$ 3.00
5/16	9/32	5/16	1/8 1/8	2.75	18	3.75
3/8	11/16	3/8	1/8 1/8	3.90	16	4.75
7/16	1 1/8	7/16	1/8 1/8	4.50	14	5.50
1/2	1 1/4	1/2	5/32 5/32	6.40	12 or 13	6.75
5/8	1 1/2	5/8	7/32 7/32	7.80	11	9.75
3/4	1 3/4	3/4	7/32 7/32	....	10	12.75

42

* Assortment consists of 4 each 5/16, 3/8 and 7/16 in., 2 1/2 and 1 5/8 in.

† Size of Nut is determined by size of Bolt on which it is to be used.

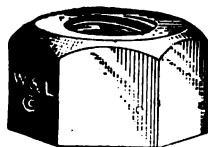
2-9

PLATE 10—MANUSCRIPT SHEET.

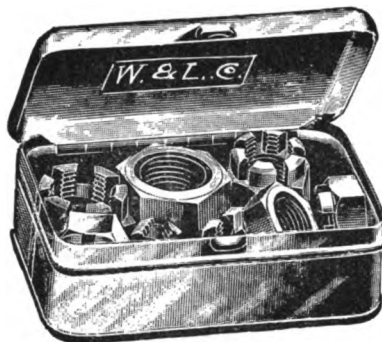
One quarter area of full size sheet.

(36)

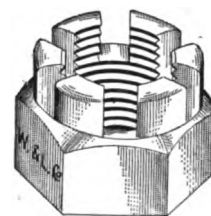
NUTS



Semi-Finished, Hexagon



Assorted, Castellated



Milled and Turned, Castellated

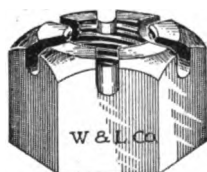
A. L. A. M. STANDARD NUTS Threaded

†Bolt, In.	Width, In.	Thick., In.	Hole, In.	Threads, per in.	Per 100	†Bolt, In.	Width, In.	Thick. over all, In.	(.....Slots.....) Width, In.	Depth, In.	Threads, per in.	Per 100
¼	½	¼	⅜	28	\$2.00	¼	¾	⅜	⅜	⅜	28	\$3.00
⅕	⅝	⅕	¼	24	2.50	⅕	½	⅜	⅜	⅜	24	3.75
⅜	⅞	⅜	⅜	24	3.25	⅜	⅞	⅜	⅞	⅞	24	4.75
⅞	1⅞	⅞	⅞	20	3.75	⅞	1⅞	⅞	⅞	⅞	20	5.50
½	1⅞	½	1⅞	20	4.50	½	2	½	2	2	20	6.75
⅝	1⅞	⅝	1⅞	18	6.50	⅝	2	⅝	2	2	18	9.75
¾	1⅞	¾	1⅞	16	8.50	¾	1⅞	¾	2	2	16	12.75
						¾	1⅞	¾	2	2	14	18.00
						1	1⅞	1	2	2	14	26.25

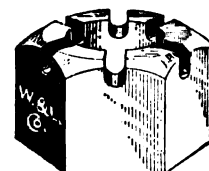
*Assorted, ⅕ to ¾ in., inclusive.....Per box, (15), \$0.80

The Association of Licensed Automobile Manufacturers, (A. L. A. M.), adopted a certain standard of thread, (so many threads per inch), as differing from other standards. The above illustrated SEMI-FINISHED, PLAIN NUTS, and the MILLED AND TURNED, CASTELLATED NUTS are both threaded A. L. A. M. Standard.

The Castellated Nuts, it will be noted, are of a different style from the Castellated Nuts shown at the bottom of the page, the former style being one specifically adopted by the Association of Licensed Automobile Manufacturers.



Standard Threaded



Blank

CASTELLATED NUTS, SEMI-FINISHED

†Bolt, In.	Width, In.	Thickness over all, In.	(.....Slots.....) Width, In.	Depth, In.	Blank Per 100	(.....Threaded.....) Threads, per in.	Per 100
¼	½	¼	⅜	⅜	\$2.40	20	\$3.00
⅕	⅝	⅕	⅞	⅞	2.75	18	3.75
⅜	⅞	⅜	1⅞	1⅞	3.90	16	4.75
⅞	1⅞	⅞	2	2	4.50	14	5.50
½	2	½	2	2	6.40	12 or 13	6.75
⅝	2	⅝	2	2	7.80	11	9.75
¾	2	¾	2	2	....	10	12.75

*Assortment consists of 4 each ⅕, ⅜ and ⅞ in., 2 ½ and 1 ⅝ in.

†Size of Nut is determined by size of Bolt on which it is to be used.

sheets which it is not intended to print must be encircled. It will be well to use for this purpose the circle rings described in Chapter III.

It will be noted that the circled notes appear in both margins opposite the different page elements. Such marginal notes indicate the sources of the various page elements (namely, the cuts, the sales matter, the general information, etc.). Now, let us suppose that the sales matter is not derived from any manufacturer's catalogue, but that the same, both as to list and as to specific description, is made up from cost records, etc., it would be well to insert, in an encircled note, the words "original, cost records, etc."

The general information will usually be original, and therefore opposite the same in the margin should appear an encircled note reading, "Original, J. B. S.," the initials J. B. S. standing, for example, for J. B. Smith, who may be said to have written or dictated the general information. If the general information were derived directly or principally from some other catalogue or book, a notation to this effect should also be inserted in the circle.

The rule concerning notation of sources of information may be briefly stated as follows: *Encircled notes should appear in the margins opposite each page element, showing the sources of all such page elements.* This rule assumes standard two-column arrangement with two cuts across the page, in which case the encircled notes in the left-hand margin will apply to the left-hand column and those in the right-hand margin to the right-hand column. In case of three-column arrangement the source of the page elements in the center column should be noted in circles to the right of the circled notes applying to the left-hand column, such notes being crowded close to the edge of the sheet to give room in the margin for the notes applying to the center column. In four-column arrangement the notes applying to the left middle column will appear in the left-hand margin, as last above described, and the notes applying to the right middle column will appear to the left of the notes applying to the right-hand column in the right-hand margin.

Notes referring to treatment of illustrations should be placed, encircled, immediately adjacent to the illustrations. Referring to Chapter VI, it will be remembered that the outline sheets described therein deal with the treatment of illustrations, that is to say, whether the same are to be "S. S." (same size), "off" (how much reduced), whether enlarged, or drawings to be made, altered or "doctored," etc.

Where illustrations are too large and are to be reduced, clippings of such illustrations, *even if too large*, should be pasted on the manuscript, and the surplus portion of the same should be allowed to project either upward or downward, to be folded over. When, finally, the right size cut clippings have been obtained, the same may be pasted over the original cut clipping, the surplus portion of which may be torn off. A study of the encircled notes, on the plates referred to, covering treatment of illustrations, will be largely self-explanatory, and careful study of the same is recommended as the best means of mastering the use of the system of notation in the treatment of cuts.

In case many changes are made in a manuscript sheet, the sheet may finally become too heavy and cumbersome on account of the successive layers which have been pasted on; in which case a fresh manuscript sheet should be made, using new cut clippings, if the catalogues from which these are obtained are plentiful, and if not, removing the cut clippings from the old manuscript. The remains of such old manuscript sheets should be placed in the manuscript "junk box," described at the close of this chapter and should not be discarded.

Under the subject of "Working Instruments and Materials," in Chapter III, the various instruments and materials necessary in manuscript-compiling are described, and it is assumed, in compiling manuscript, that all of these instruments and materials have been properly provided in convenient working quarters. The working quarters have been described under the subject of "Catalogue and Sample-rooms," in Chapter II; descriptions and uses of working quarters, working instruments and materials will therefore not be repeated. Before proceeding, however, to compile manuscript, it is advised that Chapters II and III be carefully reread and working quarters, instruments and materials in some form provided.

Referring to the body of the manuscript, each page will be seen to consist of the following elements:

1. Page caption.
2. Illustrations (cuts).
3. Cut designations (cut captions).
 - (a) Main designations.
 - (b) Subdesignations.
4. Sales matter.
 - (a) List.
 - (b) Specific description.
5. General information.
6. Packing and weights.
7. Footnotes.

Element No. 1, the PAGE CAPTION, should be selected with care, but will be largely determined by the fact that it is the stock-group number. Wherever, for example, similar, but not exactly the same, articles are grouped in the same stock group and it is inconvenient to name all articles, the abbreviation "Etc." may follow the word or words used in the page caption. To cite an instance, suppose that, in a stock group of pliers, tweezers should also be shown; it might be advisable to make the page caption "Pliers, Etc." instead of "Pliers and Tweezers," and further, in case of doubt, the abbreviation "Etc." will "cover a multitude of sins."

Element No. 2, ILLUSTRATIONS.—The subject of a catalogue illustration is considered at length in Chapter X. Particular attention is called to the necessity of noting the *sources* of cuts, etc., as described under reference to Plates 10 and 11 above.

Element No. 3, CUT CAPTIONS, is fully explained in the preceding chapter. Careful attention should be given to the selection of comprehensive captions and of sub-captions, as these elements have the same relative value as the headlines used in newspapers. It will be noted that the so-called cut captions are also the captions for the sales matter following. Some catalogues place the cut captions above the cuts, but the method of placing the captions below the cuts is more in accord with the general practice in all forms of illustrating. It is consequently less confusing and, as stated, also serves the purpose of a caption for the sales matter as well.

Element No. 4, SALES MATTER.— This element should be carefully separated from elements Nos. 5 and 6, and should be confined strictly to the list and to the specific description of the article to which it is applicable. Sales matter should in general be confined to the space under the illustration to which it applies. The standard form assumed in this book is double-column form, two illustrations wide. Of necessity the form is departed from in the instances where illustrations are large, in which case the full page width is used. On the other hand, where illustrations are small the page may be divided into thirds, quarters, or even into fifths or less. In case of exceptions judgment must, of course, be used.

The standard form referred to assumes that sales matter will run, as it is called, "half-page," and not "cross page," as full-page width is called.

As will be readily appreciated, the list may vary from a single item to a large number of items, sometimes occupying an entire page or more. Careful attention should be given to the form and method of tabulation of lists. As this is a subject in itself, it has been deemed necessary to treat it in a separate chapter, Chapter VIII.

Following the list it is usually necessary to insert a specific description of the article. The specific description of the article should, unless the same is absolutely necessary in order to further illustrate some point, contain no reference to the use of the article.

The specific description should be concise and as brief as possible, consistent with clearness. Too great brevity is, however, sometimes a mistake. The compiler should endeavor to place himself in the position of the user of the catalogue and should work from such point of view at all times. Wherever possible the specific descriptions used in manufacturers' catalogues should be used, but in this, as in all cases, care should be taken to determine whether or not the *original source of information was correct* and, in any case, improvement should be endeavored to be made on the original cataloguing, if such improvement is possible without much consumption of time.

Element No. 5, GENERAL INFORMATION, should contain description of uses and any other instructive or informative matter which may lead to greater familiarity with the article by any one using the catalogue. Most catalogue makers do not include information concerning uses, etc., unless the article is new or unusual. It

should, however, be realized that catalogues are used as a source of information, in whole or in part, by many persons new to one or more of the lines represented by the catalogue. A large part of the efficiency of a salesman depends upon his familiarity, not only with the prices and the specific descriptions of the articles which he is selling, but also with the uses, etc., of such articles; and it is the object of a catalogue to supplement and assist salesmen to the greatest degree possible. Much of the contents of a catalogue is never read by prospective buyers, so that any general informative matter contained in the catalogue becomes of immediate use to the salesman and may be legitimately used by him.

Under general information may also be stated the relative merit or superiority of the article. However, superlatives and other strong statements of superiority should be avoided. Catalogues of manufacturers are frequently compiled by mechanical superintendents who, however proficient in their particular lines, have not been so fortunate as to have obtained much general education. Such men sometimes seem to be given to the use of superlatives and, being minutely acquainted with the articles manufactured under their supervision, may be sincerely inclined to overpraise. The advantage of praise of the line represented or manufactured by the issuer of the catalogue is doubtful, and taking the benefit of the doubt, all statements in this nature should be modified to, perhaps, a forceful, but at least a dignified tone. It is hardly necessary to say that humorous statements should never be made in a catalogue.

It frequently happens that general information is applicable to articles in both columns of the page or perhaps to all of the articles on the page, in which case the general information may be specifically headed general information and run "cross page," that is, full-page width, and may be made to apply to the articles in both columns or the whole page as the case may be.

Where, however, the general information in one column does not occupy so much space as the general information in the other column, it should be "padded" to fill up and balance in amount the general information opposite.

If possible, the same elements opposite each other on each half of the page (in columns side by side) should balance. This, however, is sometimes not possible, one list being considerably larger than the other and, secondly, it is sometimes necessary to insert a specific description of greater length in one instance than in the other. It therefore happens that the two elements, sales matter and general information, combined, will be of greater length in one column than in the other. In such instances the general information in the column which is short should be padded out to fill.

This process of padding may, at first thought, seem difficult. Various methods may be adopted to furnish the necessary matter. Salesmen may, for example, be consulted and some of their arguments obtained. Certain matters in the history of the article or its invention, conditions under which first used, etc., may furnish matter. A physical examination of the article itself and attention to the most minute items of construction, size, quality, etc., will usually bring out, to inquiring minds,

possible points of value and information which may be incorporated in the general information. The experience of the author has nearly always been that he would have been able to use *more* space, if it had been available, and the filling of such space as was available has usually after all turned out to be other than what has been termed "padding." A little practice will soon develop considerable facility in filling up blank space with general information.

Element No. 6, PACKING AND WEIGHTS.—As stated in Chapter V, the information covering packing and weights of items should be included, if possible. It sometimes happens that this information, or part of it, is included in the list. If, however, packing and weight information is not included in the list, such information should be placed below the general information. As will be explained in Chapter XI, packing and weight information should be printed in *bold-face type* (black or heavy face type). The reason for placing "Packing and Weights" last is that, so located, this information can always quickly be found; and another reason is that this information does not work in well between any of the other page elements. It should be brought out clearly by means of bold-face type, as this information when wanted is wanted quickly, and it would not look well in bold-face type placed between any of the other elements. Packing and weights should be stated briefly and concisely, abbreviation being the rule, for example: "One per box" (and not "one in a box"), "25 ft., 3 lb.; 50 ft., 5¼ lb. per doz."

As stated in Chapter V, records of packing and weights should be entered as fast as information on the same is obtained. When writing for catalogues, quotations and other information, packing and weights should be requested. If this information is not at hand, when samples are examined packing should be noted and the articles weighed, if necessary.

Packing and weight information will not only prove valuable to prospective customers, but will be very valuable to the whole corps of the issuer of the catalogue, whether the corps is large or small.

Element No. 7, "FOOTNOTES."—This system can be carried too far, but when used judiciously is of great value. The conventional footnote signs * (star), † (dagger), ‡ (double dagger), etc., or small figures (probably preferable), may be used to indicate presence of footnotes. Footnotes should always run "cross page," and if of considerable importance should appear in bold-face type.

As is commonly known, the footnote sign either precedes or follows (the latter being preferable, if possible) the word or sentence to which the footnote at the bottom of the page refers. There are several reasons for the use of footnotes: First, the information is of such small importance that it is inadvisable to take the space required in the body of the page; another reason, the information contained in the footnote is applicable in two or more instances in the body of the page, thus economizing space. A still further explanation, the information is of *so much* importance that it is desired to give it prominence, by placing it at the bottom of the page in bold-face type, for the bottom of the page is a more prominent posi-

tion than any place in the body of the page and, being nearest the reader, catches the eye much more quickly than might be commonly supposed.

The standard method of compiling herein assumed is that of compiling from "skeleton" information preliminarily furnished in the form of catalogue outline sheets as described in Chapter VI. It is, however, quite possible to become so expert as to compile by dictation direct to a stenographer. On the outline sheets may be made any number of memorandums and notes, the reverse blank side of the outline sheet being used for this purpose if necessary, and for manuscript dictated from such annotated outline sheets.

A stenographer should not use a notebook in taking dictated compiling, but should use the chemical double cap manila manuscript paper (Plate 9) described in Chapter III, placing the shorthand notes on the manuscript paper in the approximate position, both horizontally and vertically, in which it is intended to eventually appear when transcribed. If the shorthand system used is some one of the Pitmanic systems, the lines on the double cap manila manuscript paper will be sufficiently wide apart. If, however, the shorthand system is one of the systems using rather large characters, two lines may be used, as the shorthand will not occupy an entire manuscript page in any case.

In estimating the amount of space consumed, in order to tell when page limits are reached, the stenographer should experimentally write several pages in shorthand, copying words from any source, and these notes should be transcribed in manuscript form, and the relative number of lines determined. For example, in some instances it might prove that for each line of shorthand on the shorthand manuscript, two typewritten lines on the transcribed manuscript would result, in other instances perhaps two and one-half, and again, where some large-character form of shorthand is used, perhaps only one and one-half lines. This relation should be determined and, in dictating manuscript, the estimate of transcribed lines should be determined by counting the number of shorthand lines and multiplying, from time to time, as dictation progresses. It is necessary to suggest that, if stenographers are changed, a new ratio of shorthand to typewriting for that particular individual should be established.

In compiling by dictation, balancing matter in the different columns should be dictated successively. For example, in case of a two-column page, the matter under the upper left-hand illustration should first be dictated; following which the matter under the upper right-hand cut should be dictated. The shorthand manuscript should then be examined to see if the matter *balances*, and if not, one side or the other should be "padded" to effect a balance, as previously described. The same relative procedure is, of course, used in the case of a three or a four column page, and also with reference to the matter on the lower part of the page.

It is evident that a stenographer of some skill and ability, and one having some experience in commercial terminology, is necessary. Accuracy and alertness are also, of course, essential, as, in catalogue-compiling the tendency to error should be stamped out at its very root, and error should be the very great exception and by

no means in any case the rule. Of course it is necessary to "check back" all matter, but it so frequently happens that an error once started at the source will carry through to the finish, so that any member of the corps developing a tendency to err frequently should be dropped out of the department *at once*.

At the close of Chapter VI the necessity of recording outline sheets is set forth. In case, in compiling manuscript, departure from the form of the outline sheet is made, a corresponding change should be made in the record.

On account of possible reference or further checking, it is advisable to retain all outline sheets and all discarded manuscript whether such manuscript has been cut up or is retained as a whole. A large box should be conveniently placed and into this "manuscript junk box" should be thrown all discarded outline sheets, memorandums, manuscript sheets and pieces of manuscript sheets, etc. Though seemingly unimportant, the retention of all "manuscript junk" is more important than will seem at first thought. The author has many times had occasion to "dig" through the manuscript junk pile for small memorandums or remnant pieces of cut-up manuscript which, before having had the experience, he would have wagered, at heavy odds, would never again be needed for reference. Then, again, the factor of occasional human error enters and always makes it possible that the piece or clipping cast off may be the wrong one and that the error may not be discovered until the following day and until the janitor has swept up the floor.

No waste-baskets should be allowed in the catalogue department. All cast-off matter should be either thrown in the manuscript junk box or crumpled and thrown on the floor, as it takes time to locate the waste-basket and as, with waste-baskets absent, the danger of fire is minimized. Nothing but blank paper or discarded catalogues should, however, be thrown away, and particularly all "created" matter should be placed in the manuscript junk box, on the use of which we have dilated because of its importance.

CHAPTER VIII.

THE LISTS.

THE lists constitute the most important part of that page element designated as the sales matter, and on the form and arrangement of the lists largely depends the sales efficiency of the catalogue. The user of a catalogue who seriously intends purchasing will be largely governed by the other page elements, that is to say, by the illustrations, the captions of the illustrations, the specific description of the sales matter and perhaps by the general information, but, having been generally influenced and determined to make a purchase, he looks intently for information as to sizes, etc., and for list prices. If this information is not set forth in a manner which enables the intending buyer quickly and easily to obtain the information desired, the mission of the catalogue may be considered as practically defeated.

If the list contains simply one item, the matter is comparatively easily handled, though perhaps not so easily as may appear at first glance. Careful consideration should be given to the method of setting forth the item, whether the number of the item or simply the name of the item, or perhaps both. If the article has a number, assigned to it by the manufacturer, this number should be used, and if possible, after this should be a dash, again followed by perhaps the name of the article, or, if not, by some designating quality such, for example, as: "120 B — Steel, Tempered.Per doz., \$9.00." In this instance the item refers to drill-grinding gages, it being unnecessary to repeat the name of the article, as the name is contained in the cut caption occurring immediately above the article. In fact, it may be said, as a general proposition, that it is seldom necessary to repeat the name of the article, it usually being better to create a number, if the article is not given a number by the manufacturer. There are instances, however, in which the article is so common that a number may not be advisable, it being necessary, in such instances, to repeat the name of the article with no number.

While on the subject of merchandise numbers, some issuers of catalogues believe that it is better to use a numbering system entirely independent of the numbers of the manufacturers. Systems of stockkeeping, etc., may make such a system advisable, though, in the absence of stock systems, etc., there is no advantage in using special numbers in a catalogue unless the lines of different manufacturers are likely to be interchanged from time to time and the numbers applied to the same articles and sizes by such different manufacturers differ, in which instance it is advisable either to introduce new numbers or to omit merchandise numbers entirely. If new numbers are created, some system of record of such numbers should be made, as otherwise, in checking invoices, etc., difficulty will be encountered if memory only is depended upon.

When more than one item appears, tabulation of lists may, at least theoretically, be said to be necessary. That is to say, when it becomes a question as to whether

or not the items shall be entered in successive horizontal order or in successive vertical order, whether "down page" or "cross page." It is difficult, in reasonably limited space, to describe and explain the various methods and systems of tabulation. A few general principles will be stated and it will then be "up to" the student to carefully study the sample manuscript pages published in this book, and also to study the pages of other available catalogues, and for the compiler to determine the method of compilation in each instance. It will frequently happen that in the manufacturers' catalogues, and other catalogues from which the information is derived, the items may be poorly tabulated and the tabulation must of necessity be improved upon, such possible improvement being desirable.

In general, it may be stated that, wherever it is possible to use a "down-page" form of tabulation with the items following each other consecutively by lines, such form of tabulation is preferable. As example of the former, attention is called to Plate 12, and of the latter to Plate 13.

The best example of voluminous lists are those of various forms of bolts and screws in which several determining factors enter. If, for example, the factor of length and that of diameter enter, the lengths may be run down the left-hand column and the diameters across the top as headings. The list prices thus being inserted tabulatively, a large number of items are accommodated on one page.

Where, however, a number of items, such, for example, as diameter, width, thickness, hole, quantity, per 100 pounds, threads per inch, etc., enter, it will be necessary to use these determining factors as a heading, the various sizes running consecutively by lines.

Plate 14 illustrates the only practical method of handling lists of such articles as bolts, screws, etc., or, in general, any articles where two dimensions, *and two only*, are needed to determine the list-price. In the case of bolts the dimensions necessary are the length, appearing in the first column, and the thickness or diameter of the bolt, appearing at the head of each column, the general appearance and effect being that of down-page listing. As the idea of giving the information in list form is to simplify the finding of the price on any particular size, it will often be found convenient, where voluminous lists are unavoidable, to repeat in the extreme right-hand column the dimension given in the first or left-hand column, the length.

Particular attention is called to the necessity of inserting *units* in the lists. For example, if the number of the stock item is inserted, such number should be preceded by "No.," "Type," "Size" or "Style" as a heading. Units of measurement, whether feet, inches or units of the metric system, should be stated, as also should the units of weight. The unit of sale should always be inserted, that is to say, "Each," "Per Doz.," "Per 100," "Per 1,000," "Per Box," "Per Case," or whatever the *sales unit* may be, and of course the monetary unit, dollars, cents, or if expressed in the monetary unit of any other country, such monetary unit should be inserted, the character (\$, for example) being preferable to the written or printed word. In the case of a monetary unit inserted in a large list where the figures appear in vertical columns, the monetary-unit sign should appear opposite the

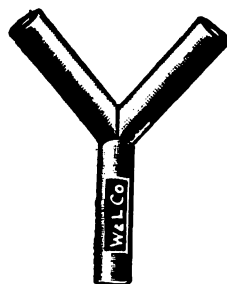
TUBING FITTINGS



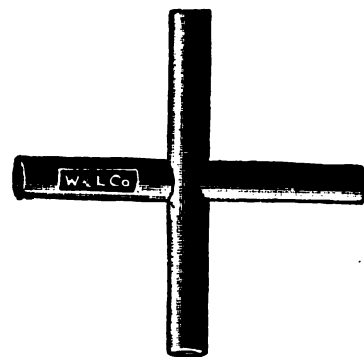
No. 11—Straight Fitting



No. 12—Tee Fitting



No. 13—Y Fitting



No. 14—Cross Fitting

BRASS TUBING FITTINGS

No. 11—Straight Fitting, $\frac{1}{4}$ in. I. D.,* (for $\frac{1}{4}$ in. O. D.† tubing,).....	Per doz., \$0.40
No. 12—Tee Fitting, $\frac{1}{4}$ in. I. D., (for $\frac{1}{4}$ in. O. D. tubing,).....	" .60
No. 13—Y Fitting, $\frac{1}{4}$ in. I. D., (for $\frac{1}{4}$ in. O. D. tubing,).....	" .90
No. 14—Cross Fitting, $\frac{1}{4}$ in. I. D., (for $\frac{1}{4}$ in. O. D. tubing,).....	" .60

$\frac{1}{8}$ in. I. D.* Fittings to Order.

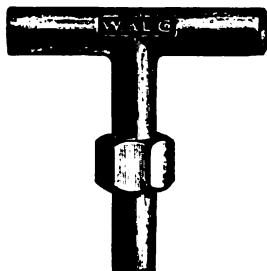
BRASS TUBING FITTINGS are made of heavy gauge, hard drawn, smooth brass tubing, with brazed joints—not soldered. Used in making tubing connections on motor vehicle gas lines, oil lines to force feed lubricators, etc. Joints properly made with these fittings will not break or jar loose. Tubing should be fitted inside of Tubing Fitting, and soldered, in order to make a tight joint.



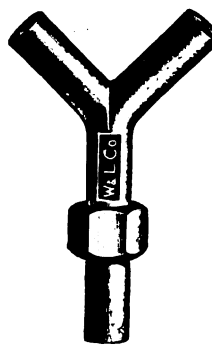
No. 21A—Straight Union



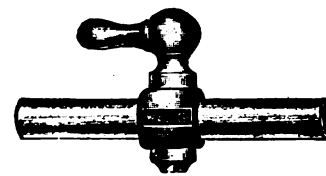
No. 21B—Straight Union



No. 22—Tee Union



No. 23—Y Union



No. 24—Gas Shut-Off Cock

BRASS TUBING UNIONS AND COCKS

No. 21A—Straight Union, $\frac{1}{4}$ in. I. D.* (for $\frac{1}{4}$ in. O. D.† tubing,).....	Per doz., \$1.20
†No. 21B—Straight Union, $\frac{1}{4}$ in. I. D. one end, $\frac{1}{8}$ in. pipe thread other end.....	" 3.00
No. 22 —Tee Union, $\frac{1}{4}$ in. I. D. (for $\frac{1}{4}$ in. O. D. tubing,).....	" 2.25
No. 23 —Y Union, $\frac{1}{4}$ in. I. D. (for $\frac{1}{4}$ in. O. D. tubing,).....	" 2.25
No. 24 —Gas Shut-off Cock, $\frac{1}{4}$ in. I. D. (for $\frac{1}{4}$ in. O. D. tubing,) with ground-in key.....	" 4.50

$\frac{1}{8}$ in. I. D.* Unions and Cocks to order.

BRASS TUBING UNIONS and COCKS are made of smooth brass tubing and are brazed, so as to permit the soldering of tubing to union without injury to union. Made with ground taper joint. Inside diameter of union is of suitable size to receive outside diameter tubing of corresponding designation.

The Tubing Union is used at a point in a tubing line, where occasional or frequent "breaks" or disconnections may be made in the line, the union permitting disconnecting and connecting without disturbing the line on either side.

GAS SHUT-OFF COCKS are made of solid brass, highly polished, with ground-in keys, and are used on motor vehicle gas lighting systems for controlling the supply of gas, etc.

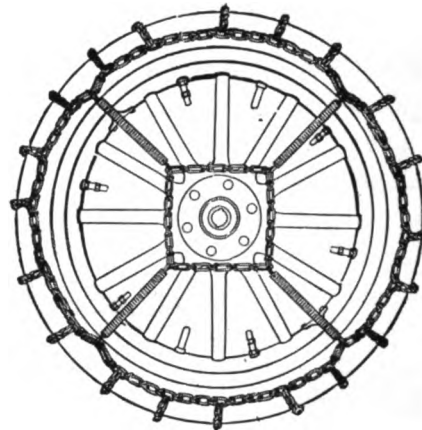
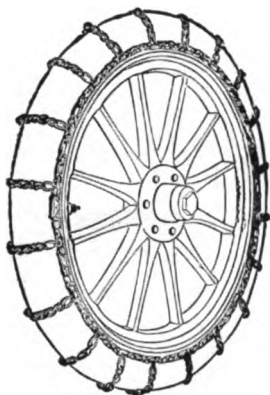
* "I. D." is the abbreviation for "Inside Diameter."

† "O. D." is the abbreviation for "Outside Diameter."

†No. 21B Straight Union is turned from heavy solid brass.

WEST & LONG CO. NEW YORK CITY

NON-SKID DEVICES



Without Adjuster

Size. Inches.	Wt. per pr., Lbs.	Per Pair.
28x3	10	\$4.00
30x3	11	4.50
32x3	11½	5.00
30x3½	12	5.00
32x3½	12½	5.50
34x3½	12¾	6.00
36x3½	13	6.50
30x4	14	5.50
31x4*	14½	6.00
32x4	15	6.00

WEED CHAIN TIRE GRIPS

Size. Inches.	Wt. per pr., Lbs.	Per Pair.
33x4*	15½	\$ 6.50
34x4	16	7.00
35x4*	16½	7.50
36x4	17	7.50
37x4*	18	8.00
40x4	20	10.00
34x4½	18	7.50
35x4½*	18½	8.00
36x4½	19½	8.00

One pair per bag.

With Adjuster

Size. Inches.	Wt. per pr., Lbs.	Per Pair.
37x4½*	20½	\$ 8.75
40x4½	21	11.00
42x4½	21½	12.50
34x5	20	8.50
35x5*	21	9.00
36x5	22	9.00
37x5*	22½	9.75
37x5½*	23	33.00
38x5½	24	14.00
39x6*	34	14.00

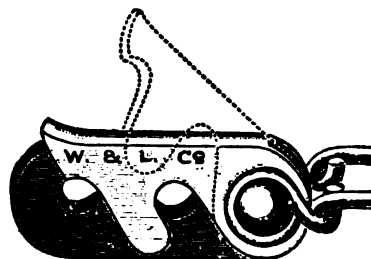
CHAIN GRIP ADJUSTERS

Adjusters for Chain Tire Grips 36 in. and smaller.....Per pair, \$1.00
Adjusters for Chain Tire Grips 37 in. and larger " 1.50

In ordering, size of Chain Tire Grips on which Adjusters are to be used must be specified.

CHAIN TIRE GRIPS, in spite of numerous efforts to devise other forms of Non-Skid Devices, continue to prove the only practical means of skidding prevention. Doubtless, Chain Grips cause some extra wear on tires, but probably there is not so much wear as might be supposed when Chain Grips are used on wet roads. Considerable wear undoubtedly results when Chain Grips are used on dry roads. Two sets of Chains should always be carried in the car, as it frequently happens that cross chains will wear or break, and sometimes streets or roads are so slippery as to require one or two chains on the front wheels.

CHAIN ADJUSTERS should always be used with Chain Grips, not only for the sake of appearance, but to prevent the noise resulting from loose chains.



Cross Chains

Size, in.	3	3½	4	4½	5	5½	6
Wt., per 100, lb. . .	15	18	24	26	28	32	52

Chains, per 100...\$6.00 8.00 9.00 10.00 12.00 15.00 18.00

When the CROSS CHAINS of Chain Tire Grips become worn there is a greater possibility of wearing the tires, and sometimes the possibility of cutting the tires quite severely.

Worn Cross Chains should be replaced with new chains.

100 Cross Chains per sack.

WEED CHAIN GRIP PARTS

Connecting Hooks

Connecting HooksPer doz., \$3.00

It frequently happens that the Side Chain CONNECTING HOOKS become jammed, causing considerable annoyance in removing and applying chains. The simplest means of overcoming this trouble is to throw away the old Connecting Hooks and attach new ones.

*Chains indicated by * are for "oversize tires." Oversize tires fit rims on which are used one inch smaller diameter tires, and tires one-half inch smaller cross section than the size given. E. G., 35x4½ inch tire fits rim on which 34x4 inch tire is ordinarily used.

top amount only, but where the succession is along a horizontal line the monetary-unit sign should appear in front of each amount. There is no objection to the omission of the monetary unit, if it is certain that the monetary character of the figures will be properly understood.

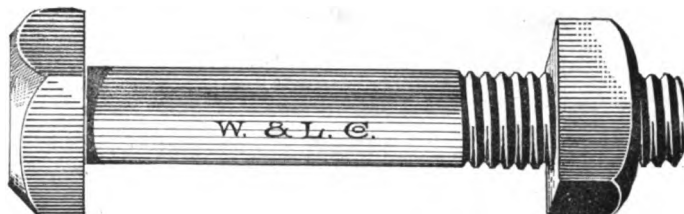
A catalogue usually differs from a price-list principally in the greater length of time which it is intended to use the catalogue. It is hardly possible to effect competitive sales directly through the list-prices printed in a catalogue, as many prices change with great frequency. So-called mail-order houses issue catalogues in which the list-prices are the actual prices, but these cases are exceptions and not the rule. It is therefore generally understood that the list-prices contained in catalogues are *subject to discount*, and that such prices are inserted for the purpose of showing the *relative or comparative values* of articles. It is advisable to use manufacturers' lists wherever possible, and wise manufacturers make their lists high enough to care for the additional freight which it is necessary to add to the cost of the articles when the same are shipped to distant points, and also to take care of the rising prices due to relatively increasing gold production and consequent decrease in the relative measuring value of the circulating medium—gold. Careful attention should therefore be given to the making of lists, and while manufacturers' lists should be used wherever practicable, such lists will often be found insufficiently high and should therefore be raised, by uniform amounts if possible, a record of the difference being made either on the cost records or in some other readily available form. It is sometimes an excellent idea, when the manufacturer's list appears too low, to take up with the manufacturer the possibility of raising the list, as it frequently happens that, if a list is too low, it is not long after the catalogue is issued that the manufacturer raises his list, the list in the catalogue thus disagreeing with the latest manufacturer's list.

Manufacturers' lists should be carefully scrutinized to see whether they are *well balanced*. It sometimes happens that lists are the natural development of added costs based on original poorly devised lists which have never been revised by the manufacturer. The author has often observed lists running, for example, as follows: 1 inch....\$1.00; 1½ inch....\$1.85; 2 inch....\$2.00; 2½ inch....\$2.10; 3 inch....\$2.25; 3½ inch....\$3.25; and so on. Theoretically, this list should have been 1 inch....\$1.00; 1½ inch....\$1.50; 2 inch....\$2.00; 2½ inch....\$2.50; 3 inch....\$3.00; 3½ inch....\$3.50; and so on. Practically, the list might not run exactly this way, there being some special reason for difference in cost. Such a discrepancy should be straightened up by correspondence with the manufacturer if possible, and if not, good judgment should be used in making a well-balanced list, unless some specific reason, such as coöperation with the purchasing department or other reason, bars changing the manufacturer's list.

In inserting lists careful comparison should be made with catalogued prices on similar goods in the catalogues of competitors, care being taken that the lists correspond as far as is consistent.

A very convenient way to handle list insertions is to leave the spaces for the

MACHINE BOLTS



REFINED IRON, FORGED SQUARE NUTS AND FINISHED POINTS

List Adopted August 1, 1912.

Per 100													
Length, Inches	$\frac{1}{4}$ Inch	$\frac{5}{16}$ Inch	$\frac{3}{8}$ Inch	$\frac{7}{16}$ Inch	$\frac{1}{2}$ Inch	$\frac{5}{8}$ and $\frac{3}{4}$ Inch	$\frac{3}{4}$ Inch	$\frac{7}{8}$ Inch	*1 Inch	*1 $\frac{1}{8}$ Inch	*1 $\frac{1}{4}$ Inch	Length, Inches	
$\frac{3}{4}$ to 1 $\frac{1}{2}$	\$1.70	\$2.00	\$2.40	\$2.80	\$ 3.60	\$ 5.20	\$ 7.70	\$10.50	\$15.10	\$22.50	\$30.00	$\frac{3}{4}$ to 1 $\frac{1}{2}$	
2	1.78	2.12	2.56	3.00	3.86	5.58	8.25	11.20	16.00	23.70	31.50	2	
2 $\frac{1}{2}$	1.86	2.24	2.72	3.20	4.12	5.96	8.80	11.90	16.90	24.90	33.00	2 $\frac{1}{2}$	
3	1.94	2.36	2.88	3.40	4.38	6.34	9.35	12.60	17.80	26.10	34.50	3	
3 $\frac{1}{2}$	2.02	2.48	3.04	3.60	4.64	6.72	9.90	13.30	18.70	27.30	36.00	3 $\frac{1}{2}$	
4	2.10	2.60	3.20	3.80	4.90	7.10	10.45	14.00	19.60	28.50	37.50	4	
4 $\frac{1}{2}$	2.18	2.72	3.36	4.00	5.16	7.48	11.00	14.70	20.50	29.70	39.00	4 $\frac{1}{2}$	
5	2.26	2.84	3.52	4.20	5.42	7.86	11.55	15.40	21.40	30.90	40.50	5	
5 $\frac{1}{2}$	2.34	2.96	3.68	4.40	5.68	8.24	12.10	16.10	22.30	32.10	42.00	5 $\frac{1}{2}$	
6	2.42	3.08	3.84	4.60	5.94	8.62	12.65	16.80	23.20	33.30	43.50	6	
6 $\frac{1}{2}$	.....	3.20	4.00	4.80	6.20	9.00	13.20	17.50	24.10	34.50	45.00	6 $\frac{1}{2}$
7	.....	3.32	4.16	5.00	6.46	9.38	13.75	18.20	25.00	35.70	46.50	7
7 $\frac{1}{2}$	.....	3.44	4.32	5.20	6.72	9.76	14.30	18.90	25.90	36.90	48.00	7 $\frac{1}{2}$
8	.....	3.56	4.48	5.40	6.98	10.14	14.85	19.60	26.80	38.10	49.50	8
9	.....	.....	4.80	5.80	7.50	10.90	15.95	21.00	28.60	40.50	52.50	9
10	.....	.....	5.12	6.20	8.02	11.66	17.05	22.40	30.40	42.90	55.50	10
11	.....	.....	5.44	6.60	8.54	12.42	18.15	23.80	32.20	45.30	58.50	11
12	.....	.....	5.76	7.00	9.06	13.18	19.25	25.20	34.00	47.70	61.50	12
13	.....	.....	.....	7.40	9.58	13.94	20.35	26.60	35.80	50.10	64.50	13
14	.....	.....	.....	7.80	10.10	14.70	21.45	28.00	37.60	52.50	67.50	14
15	.....	.....	.....	.....	10.62	15.46	22.55	29.40	39.40	54.90	70.50	15
16	.....	.....	.....	.....	11.14	16.22	23.65	30.80	41.20	57.30	73.50	16
17	.....	.....	.....	.....	11.66	16.98	24.75	32.20	43.00	59.70	76.50	17
18	.....	.....	.....	.....	12.18	17.74	25.85	33.60	44.80	62.10	79.50	18
19	.....	.....	.....	.....	12.70	18.50	26.95	35.00	46.60	64.50	82.50	19
20	.....	.....	.....	.....	13.22	19.26	28.05	36.40	48.40	66.90	85.50	20
21	.....	.....	.....	.....	.....	.....	.....	37.80	50.20	69.30	88.50	21
22	.....	.....	.....	.....	.....	.....	.....	39.20	52.00	71.70	91.50	22
23	.....	.....	.....	.....	.....	.....	.....	40.60	53.80	74.10	94.50	23
24	.....	.....	.....	.....	.....	.....	.....	42.00	55.60	76.50	97.50	24

*Furnished on Special Order only.

"Length" of Machine Bolts is measured from under head to end.

Machine Bolts $\frac{1}{4}$ inch diameter, all lengths, 100 per package; $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$ and $\frac{1}{2}$ inch, $\frac{3}{4}$ to 12 inches long, 50 per package; $\frac{1}{2}$ inch, 13 inches and longer, 25 per package; $\frac{5}{8}$, $\frac{3}{4}$ and $\frac{7}{8}$ inch, $\frac{3}{4}$ to 12 inches long, 25 per package, 13 inches and longer, bulk; $\frac{7}{8}$, 1, 1 $\frac{1}{8}$ and 1 $\frac{1}{4}$ inch, all lengths, bulk.

GALVANIZED MACHINE BOLTS

Diameter, in.	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Length, in.	1	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2
Per 100	\$4.80	\$7.20	\$7.20	\$7.20	\$7.72

GALVANIZED MACHINE BOLTS are used in all classes of exterior iron or steel frame work, such as fire escapes, grill work, in fact in all classes of work exposed to the elements.

amounts blank until the completion of each division, handling the insertions of the amounts for the entire division as one process later.

This process may be advantageously coupled with the process of review and criticism of catalogue manuscript described in Chapter IX. Of course, if manufacturers' lists are to be used unchanged, and it is immediately evident that such is the case, the amounts should be entered when compiling, thus saving subsequently unnecessary work. If, however, manufacturers' lists require examination, with the possibility of modifying the lists in view, or if it is necessary to make up lists, blank spaces should be left for the purpose and the process performed *a division at a time and not a page or two at a time*.

It very often happens that several manufacturers will turn out lines of goods, the general character of which may be the same and the sizes identical, but owing to a difference either in the constituent material or the actual finish of the articles themselves, one line is intended to be sold at a considerably lower price than the other. In such an event, care should be taken to show, as far as possible, the relative difference in the ultimate selling price. Each manufacturer may have a recognized list of his own, high enough to permit the use of such list in the catalogue; still the two lists, when taken together, would not convey the idea of the difference in value. In that event one or the other of the lists or possibly both should be increased or decreased to obtain this result. The fact that lists are inserted *primarily to give an idea of relative values* should never be lost sight of.

The class of trade to which the catalogues will be distributed is also a factor to be considered. If the general line covered is one that appeals, for instance, only to the jobbing trade, its circulation would be necessarily confined to jobbers, and such catalogues would not be expected to reach consumers. If, on the other hand, the distribution is to be general, it will be necessary to bear in mind that the consumer will, as a general rule, expect some discount from the printed price. The dealer or retailer who actually makes the sale will, of course, expect a discount beyond the one allowed to the consumer, and there is still the jobber or distributor to be taken care of. The general character of the goods covered and the relative amount of profit to be allowed at each stage of the transaction will determine the exact figures of the list.

Where there is a well-recognized standard manufacturer's list, such list will usually be found to have been compiled with these ideas in mind, but where there is no standard list, the list inserted should be made accordingly.

Since writing the foregoing chapter the great price level rise caused by general increased demand and the arrival in the United States of great amounts of gold, as a result of the European war, has in many instances resulted in prices higher than catalogue list prices, thus superannuating many catalogue lists. The best final solution of the catalogue list difficulty would seem to be the omission of lists and the separate issuance of compact lists or price sheets from time to time.

CHAPTER IX.

REVIEW AND CRITICISM OF CATALOGUE MANUSCRIPT.

THE process indicated by the title of this chapter may be said to be taking place, in a minor fashion, at all periods of compilation. If possible, however, some person fully conversant with the line and sufficiently competent to criticize the method of wording, etc., and who has had no very definite part in either outlining or compiling, should be assigned to the duty of systematically reviewing and criticizing (editing) the manuscript.

There are two main ideas to be kept in view by the reviewer. First, does the portion being reviewed cover the field fully enough, and, second, is the information correct? It will be seen that, to intelligently handle the first point, a portion of the manuscript should be taken at one time, the various items of which are to a certain extent complete in themselves when taken together. The amount of manuscript to be considered at the time having been determined, it should be scanned carefully to see that no items of the reviewer's acquaintance have been omitted which should have been included.

The sources of information used in compiling, of course, show on the manuscript. A list of the catalogues used in compiling that particular portion should be made out and turned over to a clerk to secure from the reference files. The list should be made out in the order in which the reference catalogues have been used in compiling, and catalogues should be placed before the reviewer in the same order. Along with the catalogues should be furnished quotations and discount sheets applying, these being gotten together by the same clerk who gathers the reference catalogues.

The portions of these reference catalogues bearing upon the subject-matter under consideration should be looked over, attention being paid not only to the pages noted on the manuscript as covering the source of information, but also to all pages covering material closely related. The fund of general information possessed by the reviewer will, of course, be drawn on at all times, hence the advisability of the criticizing being done by one familiar with the line.

It is possible that, in the opinion of the reviewer, certain sizes, numbers or styles, etc., of articles have been omitted, or, for that matter, perhaps even that an entire line has been omitted. Such omissions should be taken up at once with the outliners, and the final question of inclusion or exclusion disposed of.

Taking it for granted that in general all articles are covered that should be covered, the next step is the comparison of sales-descriptive information and general information (unless original) with that given in the source from which derived, and the truth of all original matter should be weighed. Care should be taken to see that sizes are accurately given, that no actual misstatements are made, and that the detailed information, such as "finish" of goods, variations possible, packing and weights, etc., is sufficiently full and complete. If lists have already been inserted (see Chapter VIII), these are, of course, subject to review, and this necessitates ref-

erence to quotations and discount sheets which, as before suggested in this chapter, should be furnished to the reviewer along with the reference catalogues. It is advisable, in reviewing the lists, to make separate jobs of entire divisions if possible, as undoubtedly, in numerous instances, information will have to be secured from the purchasing department as to the delivered costs of certain goods, etc. This information will be necessary either where there is no standard recognized list to cover the article in question, and one will have to be established for the purpose of the catalogue, or where there is a doubt as to whether the recognized list is suitable for the catalogue. (See Chapter VIII.)

The information given in the manuscript having been found complete and correct, the designating number of articles should be compared to avoid using, in the same general group, the same number to denote similar articles. For example, a certain style of lamp might be designated by one manufacturer as "No. 300," another manufacturer turns out a lamp which he calls "No. 300," but entirely dissimilar to the one of the first manufacturer. It is decided to show both lamps, and, other things being equal, the manufacturer's number in each instance would be used. This, of course, would be incorrect, and to guard against this a review of the numbers used is necessary.

Either cut clippings or proofs, in most instances, will appear on the manuscript, or at any rate information as to the cut to be used will be shown. The proposed illustrations should be carefully compared with the descriptive matter to see that there is no discrepancy and, if practical, a comparison of the concrete article (sample) with the illustration could be made to advantage, and in case of doubt such comparison should be made.

The general form and arrangement of each page with regard to its neighbors should receive careful attention. The idea must never be lost sight of that a catalogue should not be simply a number of lists and illustrations, indiscriminately gathered and printed without regard to relativity or interrelation of parts. There should be a definite uniformity of treatment and a logical arrangement dictated by sound judgment and common sense. As a finishing touch to the review of any given division, that division taken as a whole should be gone over to see if the order as proposed is logical and whether or not some rearrangement of the pages or the order in which goods are shown might not be made whereby the relation of one part to another might be more clearly brought out.

As stated at the close of the preceding chapter, the most convenient way to handle the insertion of the amounts of the lists is to leave the lists blank in compiling and insert the amounts a division at a time. This process can be performed by the reviewer and critic, as it is necessary that the reviewer be fully familiar with the line, and, as such, competent to judge and determine, and to properly balance, the list amounts.

It is perhaps inadvisable to review and criticize manuscript and insert list amounts simultaneously, but the specific method followed may be left largely to the discretion of the manuscript reviewer.

CHAPTER X.

CATALOGUE ILLUSTRATIONS.

AS stated in Chapters VI and VII, the subject of catalogue illustrations will here be considered at length, as it constitutes an important subject in itself.

Before, however, proceeding to the specific consideration of the methods of obtaining and using cuts for the purpose of catalogue illustrating, the process of making cuts will be described, as it is necessary to understand, for example, the difference between line cuts and half-tones before proceeding with the selection of cuts.

A visit or two to an up-to-date and properly managed photoengraving establishment, and a general explanation of the processes, will serve to promote an elementary knowledge of the process of photoengraving.

Persons not acquainted with the different characters of cuts are prone to call all cuts "electrotypes." An electrotype, usually called "electro," is simply a reproduction of another cut — a woodcut, a zincotype, a half-tone, or of another electrotype. Electrotypes of electrotypes are, however, sometimes not so good as electros of original cuts. If the process of electrotyping electros is continued indefinitely in a line of descent from electro to electro, poor printing qualities will finally result, especially in the case of electrotypes whose original cuts were half-tones.

An electrotype is made by covering the original with a film of the finest plumbago powder (black lead), following which the face of the cut is pressed into a bed of soft, fine wax, the plumbago preventing adhesion and facilitating the withdrawal of the cut. The wax mold thus obtained is suspended in a galvanic bath of copper sulphate and an electric current is passed through the liquid to the mold. Copper deposits itself in metallic form over the face of the wax mold and soon becomes thick enough to be used as a cut in place of the original, when backed up with other metal and mounted on a block of wood or, for heavy service, on a metal block. The necessity of obtaining perfect impressions from half-tone cuts has led to the introduction of gutta-percha as a substitute for wax as the mold medium. Gutta-percha is melted and poured on the cut, being removable, after cooling, without the risk attendant upon the use of wax, this substance sometimes giving way in course of separation from the cut. Furthermore, gutta-percha is more tenacious and its flexibility usually obviates breaking and tearing.

The process now used in making original cuts is, in the United States, called photoengraving, this term being used to describe the photomechanical processes used. In England photoengraving is known as "processwork" and "processing," and the resultant product as "blocks" instead of the American term "cuts."

There are two distinct classes of cuts produced by the photoengraving process, namely, line cuts and half-tone cuts. It is of the utmost importance to understand the difference between these two classes. The photoengraved line cuts used in catalogue work are known as zincotypes. Woodcuts are also line cuts, but are not pro-

duced by the photoengraving process, as is explained below. Zincotypes can be produced only from drawings or other illustrations which are pure black and white, no intermediate or gray tones being possible, on account of the nature of the process. A line drawing or another line cut illustration, either zincotype or woodcut, may be reproduced on zinc. In reproducing line drawings on zinc it is usually customary to make the drawings double the size of the intended zincotype, sharper contrasts between the black and white thus being effected.

In reproducing other line-cut illustrations on zinc, same size (S.S.) reproductions are frequently made and can be made successfully, if the lines on the "cut copy" (illustration clipping) are distinct. Also, if the lines are distinct, it is possible to make an enlargement, but, as will be readily appreciated, any enlargement or increase in size will result in less clear cut and wider spaced lines in the resultant zincotype, so that there is always a limit within which enlarging a reproduction may take place successfully.

On the other hand, when the size of an illustration is reduced in reproduction it will be appreciated that there is also a downward limit, too great reduction resulting in the closing in of the lines, possibly to such a degree as to merge them, the result, when an impression of the cut is taken, being a solid-black blot.

In detail the process of making zincotypes is, briefly, as follows: A special camera, using glass photographic plates, is used, the lens and other apparatus being specially constructed for the purpose.* Upon exposure of the plate to the "copy" (drawing or cut clipping), the resultant negative remains absolutely dense except where the lines or other black places on the copy have affected it, and at such places the plate remains absolutely clear, thus effecting the unrestricted passage of light through such places. A piece of planished zinc is sensitized to light by the application of a preparation of albumen or gelatin and potassium bichromate spread on the surface. The negative, being placed over this sensitized metal, is exposed to the light in the same manner in which a photograph is light-printed; the light, passing through the transparent lines and places of the negative, having the effect of hardening the film on the zinc plate. The negative and the zinc plate are then taken to the darkroom and the metal plate rolled with a special ink, then placed in a bath of cold water and soaked until the sensitized film becomes softened. The places, however, where the film has been hardened remain covered by this film. These lines are then dusted with a powder known as dragon's blood and heated until this powder melts on the lines. The purpose of this is to resist the action of the acid to be subsequently applied. The back and edges of the plate are then coated with a special varnish, also for the purpose of protection from the acid. Only the spaces between the lines on the surface of the plate are thus left free to the action of the acid.

The next step consists of placing the plate in a bath of dilute nitric acid, with the result that the metal is eaten away wherever it is exposed, the lines protected by

* If the student is interested in informing himself technically on the subject of photoengraving, a technical description of the entire process of photoengraving may be found in Amstutz's Handbook of Photoengraving, The Inland Printer Co., Chicago, Publishers.

the application of the powder remain and thus stand up above the acid-etched surface. It will be seen that the lines correspond to the raised lines of a woodcut and constitute the printing surface of the plate.

The plate is usually mounted on a wood block, though sometimes, where great permanency is desired, on a metal block, being made type-high for use along with type in the printing-press.

Various devices are sometimes resorted to for the purpose of effecting tones or intermediates between pure black and white (varying grays) in zincotypes. Most of these devices consist of various means for finally effecting the appearance of numerous dots of different degrees of intensity, somewhat in imitation of the dots effected in the half-tone process described below.

The photoengraving process by which half-tones are produced so differs from that by which zincotypes are produced that the effects of intermediate tones, of varying light intensity, are reproducible on metal plates. Technically speaking, full "tones" are pure black and pure white. For the want of a better name, the intermediate "tones" were designated as "half" tones, meaning the seemingly varying tones or degrees of light between the extremes of black and white.

If a half-tone be examined closely it will be seen to consist of seemingly numberless dots of varying degrees of light intensity. A close examination through a magnifying glass will disclose the fact that the illustration is made up, in its final analysis, of simply black and white just as a zincotype is made up of black and white. In the case of the zincotype, however, the black portion is all solid and the white portions show as pure white. In the case of half-tones, while, as stated, final analysis shows the presence of nothing but black and white (we do not, of course, refer to colorwork in this instance), black dots are present at all points of the surface. In the "high-light" portions, as those portions representing the white or near-white portions are called, the black dots are at their minimum size, whereas in those portions representing the blacks or near blacks, the black dots are at their maximum, little or no space being left between the dots. The intermediate or half-tone effects are obtained by the varying size of the black dots. The effect, when not closely examined, is to give the impression of an unbroken "tone."

Pure line drawings, or other line-cut illustrations, can not be successfully reproduced by the half-tone process, this process being applicable to cases in which the drawing, or other illustration, is in tones or varying degrees of light effect. On the other hand, drawings in tone can not be reproduced by the zincotype process, as the zincotype process is capable of producing simply contrasted blacks and whites, as above described.

The dotted effect of the half-tone is obtained by photographing the drawing, or other illustration which it is intended to reproduce, through a so-called "screen." This is made by coating a sheet of flawless glass with a composition and placing the sheet in an automatic ruling machine of which the ruling point is a diamond, so adjustable as to rule any number of lines within a range of from 50 to 300 lines per inch. The lines are ruled diagonally across the glass, mathematically equidis-

tant. After ruling, the glass is treated with hydrofluoric acid, which has the effect of eating into or etching the glass at the points where the ground has been cleared away by the diamond-point ruler. The plate is then cleaned and an opaque pigment rubbed into these lines. Two of such sheets of glass are then placed face to face, with the diagonally ruled lines at right angles, and sealed together with Canada balsam. The result is a grating or screen containing seemingly innumerable little sections of transparent glass that admit the passage of light, and this light in turn is restricted and stopped by the ruled lines.

The character of the resultant half-tones depends primarily upon the so-called magnitude of the screen. The smaller the number of lines on the screen, the fewer the dots and larger their minimum size, and the larger the number of lines, the greater the number of dots and smaller their minimum size. If the dots are very small it will be very difficult to appreciate the fact that the surface of the cut is broken up into dots. It will be apparent that the larger the minimum size of dots, the greater space there will be between them, and the smaller the minimum size of the dots, the smaller the intervening space. As the eventual object is the impression on paper of ink at the points of the dots and its omission between dots, a "coarse" screen, with resulting large dots may be used successfully on cheap or "pulpy" paper, whereas the finer the screen the better must be the paper used. This plan prevents the face of the cut from sinking or "squeezing" into the paper and depositing ink at the spaces between the dots, thus making a blotted or blurred impression. Most newspapers, which use the ordinary "news" grade of paper, use half-tones reproduced through an 80 screen (80 lines per linear inch), whereas in most catalogue work 133 screen half-tones are used. Extremely fine work sometimes runs up as high as 300 screen, though this is rare.

In producing the half-tone negative a screen of the desired degree is inter-mediated between the lens and the photographic plate. Each aperture in the screen may be regarded as a pinhole forming upon the surface of the plate a pinhole image of the aperture of the lens. At one time a common form of small "kodak" type of camera was the so-called pinhole camera in which there was no lens, the front being simply covered with a sheet of dark paper punctured at its central point with a pin. Excellent photographic results have been obtained with pinhole cameras. The smallness of the aperture compels a crossing of the light rays, effecting the same result as by the use of a lens, and the various minor light rays are modified to their proper strength or value in the effort to gain passage through the pinhole.

In the half-tone photographic process the lens may be said to pick up and sort out the larger or stronger rays, which are passed on to the photographic screen, and the small rays are still further broken up and sorted out in passing through the numerous "pinhole" apertures of the screen. The result is, in the instance of each dot, a strong illumination in the middle, shading down to a dimly illuminated edge. If the rays of light are strong, the illumination is strong even clear up to the edges of the dots, and the illumination may be so very strong that the

shadows cast by the opaque lines of the screen are, at such points, eliminated and the dots merged.

In the early days of half-tone work zinc was also used for half-tone cuts, but greater experience demonstrated that the denser character of copper made copper plates more suitable for the production of best half-tone cuts, and zinc is now only used for the production of cheap and coarse-screen half-tones. A copper sheet is planished and coated with a preparation of gelatin, or fish glue, and potassium bichromate. This is exposed under the half-tone photographic negative in the same manner as sensitized zinc is exposed to a line-cut negative. The portions of the photographic plate which have been affected by the light rays through the camera lens and through the screen are those portions, when developed, which resist the passage of the light in printing through such photographic plate onto the sensitized copper plate. The action of the light passing through the other portions, however, hardens the gelatin film, and the portion not so hardened is soluble in water. The copper plate, with the resultant image or picture in lines and dots, is then exposed to heat and the image is burned in on the surface of the metal, practically in the form of an enamel. When the plate is then placed in a bath of perchloride of iron, these "enameled" portions resist the etching action of the perchloride until sufficient depth has been obtained. This first etching process is the so-called "flat etching." The fine work of the craftsman comes in at the stage of so-called stopping-out or staging and reëtching, in which portions of the plate are coated with an asphaltum preparation where it is desired to protect the plate against the action of the etching liquid, according to the artistic taste and judgment of the craftsman. Subsequent applications of the etching liquid to portions of the plate not "stopped" also are made according to judgment. In coarse-screen work the first or flat etching is usually the final etching, but the finer the screen the more care in reëtching is necessary.

In the case of half-tones, the etching liquid does not eat so deep as the etching liquid used in the production of zincotypes, as the intervening spaces between the dots are small, and the high points, represented by the dots on the illustration, would have a tendency to break off if the intervening spaces were too deep. The selection of the proper screen is, therefore, of importance. If it is necessary to use a cheap paper, it will be necessary to use half-tone cuts of coarser screen. It is much better, however, to use about 133 screen half-tones and see that the paper is of sufficient body and strength of surface to produce good results with 133 screen half-tones.

It should be explained at this point that printing with half-tones is much more expensive than printing with line cuts (zincotypes or woodcuts). As explained above, the filling up of the spaces between the dots (high spots) on the half-tones must be guarded against, with the result that the adjustment of the cut in the type form, as to height, must be much more delicate than the adjustment of line cuts. That is to say, a half-tone cut must be so "made ready" as to give exactly the proper amount of impression. If the impression is too great, that is, if the

cut is "squeezed" into the paper, the intermediate spaces between dots will be inked in and the result will be a blur, and if the impression is not sufficient a "faint" illustration will result.

It therefore becomes advisable, especially in the case of voluminous catalogues in which very high-grade paper is not usually used, to use line cuts wherever possible. In general, it may be said, in the illustration of ordinary forms of merchandise, line cuts are more serviceable, the object is brought out sharply and clearly, and the purpose of the illustration is thus fully served. In the cases of high-class merchandise, such, for example, as illustrations of certain plumbing supplies, and, for that matter, other forms of high-grade merchandise, half-tones may, however, be used more satisfactorily. Another and important reason for the use of line cuts rather than half-tones is that, not only is the paper necessary to be used much more expensive, but the half-tone cuts themselves are very expensive compared with line cuts. In the first place, a half-tone drawing must be made by air-brush, or other slow and high-skill-requiring means, whereas a drawing for a zincotype is made simply with pen and ink and usually not by so expensive a man. Furthermore, the half-tone process is slower, more expensive materials and higher-grade men being necessary at almost every step in the process.

As stated above, woodcuts are made by drawing on the surface of a block of wood the image in reverse, the wood between these lines then being carved out. Where the lines are regular and at regular intervals, this carving is done by machine, variations being performed by hand with appropriate tools. It can not be denied that woodcuts produce the best line-drawing illustrations for catalogue work, in the majority of instances. Woodcut making is, however, expensive and consequently generally prohibitive, unless the edition is to be a very large one or unless it is intended to use woodcut illustrations in a large number of different catalogues. Examples of these are the catalogues of numerous customers of the manufacturer, where the customers are furnished with electrotypes "pulled" from the original woodcuts. It may be remarked in passing that the original woodcut should never be used to print from; an electrotpe should always be pulled from it for this purpose.

One of the first steps that the student should take is to learn to distinguish, in the first place, between line cuts and half-tones, and, in the second place, as to line cuts, between woodcuts and zincotype line cuts. A half-tone can be readily distinguished by the presence of the seemingly numberless dots, minute dots being present in the high lights, or light portions, whereas in line cuts no dots are present in the high lights.

The means of distinction between a woodcut and a zincotype is that, in woodcuts used in ordinary catalogue illustration, the lines are regular and at regular intervals. Sometimes, in both woodcut work and zincotype work, cross lines are used to effect the appearance of dots. That these are not half-tones can, as above suggested, be distinguished by the fact that no dots are present in the high lights. It is, however, sometimes difficult to distinguish between a woodcut and a zinco-

type made by some mechanical-drawing process. Woodcuts for catalogue illustrating are usually made with regular parallel lines machine-carved on the block. Zincotypes made from line drawings can usually be distinguished by the fact that the perfect regularity of parallel lines present in catalogue woodcuts is absent.

Many line-cut artists have, however, become quite proficient in drawing lines of such true parallelism as to make the result difficult to distinguish from woodcuts. Nevertheless, careful examination will show that a pen has been used. It should, however, be fully understood that a zincotype may be made from woodcut illustration used as the "cut copy." The lines present on a woodcut illustration are simply black lines with white intermediate spaces and are thus reproducible on zinc, as above described. Therefore, where cut clippings, for use as cut copy, are taken from manufacturers' catalogues with the intention of reproducing same, preference should be given to line cuts, originally zincotypes or woodcuts.

In determining the use of cuts in the catalogue it should be realized, at the outset, that the making of original illustrations is expensive. Half-tones are very expensive. While it is not so expensive to reproduce the line cuts used in other catalogues, still the total may be considerable, and, if it is desired to minimize expense, reproduction should be avoided as far as possible, especially reproductions of half-tones. It will sometimes happen that electrotypes of cuts can not be obtained, either due to the non-existence of the same or on account of the fact that relations with the owner of such cuts are not such as to make their borrowing possible. In this case it will be necessary to clip out the illustration as cut copy and have it reproduced by the photoengraver. It should, however, be remembered that, as above stated, the reproduction of half-tone clippings is much more expensive than the reproduction of line-cut clippings. It is well, also, to here call attention to the fact that the reproduction of an *original* cut in a copyrighted catalogue is prohibited by the copyright laws, and care should be taken not to reproduce any such copyrighted original cuts.

On the other hand, while it has been suggested that the making of original cuts is expensive, it is always advisable to have cuts truly representative of the articles catalogued. There is no better sales or advertising medium than a catalogue, and the illustrations in a catalogue may be said to be the most effective page elements therein. The effect of illustrations may be readily understood when one stops to realize that, in reading an illustrated humorous paper, the printed matter under the illustrations is nearly always read, whereas the reading of any other printed matter than that in connection with illustrations is the exception. A picture will "tell the story" at a glance. It is inevitable that, in the compiling of a catalogue, illustrations of many articles will be found to be non-existent or, if existent, to be poor or incorrect illustrations. Illustrations should always show exactly what the article is, and, if it is not possible to spend money necessary for original or altered illustrations truly depicting the articles, the catalogue had better not be published at all. Catalogue-making is, after all, largely a matter of advertising, and it is a fact that poor advertising in any form does not pay.

Either advertise properly or do not advertise at all. Again, comparing a catalogue to a salesman (a catalogue being erroneously called a "silent salesman" by many), if any of the page elements are deficient, only a partial representation of the article catalogued is made, and a salesman who is deficient in demonstrating qualities usually fails in his mission sooner or later.

As a matter of fact, extensive original illustration undoubtedly pays, but the determination of the extent of original illustration must be left to individual determination and judgment.

A careful study of the subject of photoengraving and an extensive examination of all available catalogues over an extended period, as a preliminary to determining the policy of catalogue illustration, should be made. At the time the catalogue outlining, as described in Chapter VI, takes place, the cuts to be used on each page outlined should be determined. Having decided on all the articles to be represented on such page, a systematic examination of all catalogues representing such articles should then take place. To do this, the classified index should be examined and notations made of the catalogues and numbers in the reference file covering all the desired items. This memorandum will then be handed to the file clerk, who will obtain all of the catalogues called for from the reference file, drawing the catalogues from the reference-copies section of such file. The catalogues will then be examined and the cuts to be used determined, if it is decided to use any cuts in such catalogues. It may, however, be decided to have new drawings made or it may be decided to have such cuts reproduced, either on account of the unavailability of the electros of such cuts or because such cuts require reduction, alteration or enlargement. Entry should be made on the outline sheet, as described in Chapter VI, covering sources of such cuts and the treatment of the same. If it is decided to use an electrotpe obtained from the issuer of the catalogue from which such cuts are to be drawn, in the space after "Treatment" the word "write" should be entered, and a letter should be written requesting such cuts.

In determining the appropriateness and availability of cuts, the relative size of all cuts on the same page, and of all these cuts to cuts of similar or analogous articles on preceding or succeeding pages, should be considered.

A common shortcoming in many catalogues is the disproportionate size of related illustrations. For example, an illustration of a book may be 2 inches high, alongside of which may be illustrated a printing-press, the illustration of which is not over $\frac{1}{2}$ inch high. Of course it may not be possible, and it is not always advisable, to make the cuts of articles the same relative size to one another as the relative sizes of the articles which they represent. General artistic appearance must be taken into consideration, and, if the relative sizes of cuts *seem* disproportionate, the difficulty should be corrected either by reduction of the illustration which seems too large or, if that is not possible, by the enlargement of the other, if such enlargement can be effected, or by the production of an original cut.

In determining the proper relative size of cuts, the reducing and enlarging glasses described in Chapter III should be used. Place the two illustrations whose relative sizes are being determined side by side, and, if it is advisable to reduce one, hold the reducing glass over such illustration, moving the reducing glass forward or backward until the illustration appears to be about the proper size through the reducing glass. A ruler or 6-inch steel scale is then held above and across the face of the reducing glass, with the reducing glass so held that the illustration appears to be about the proper relative size, and the size of the image measured by sighting across the scale through the glass at the image. Suppose, for example, that, in sighting across the ruler and through the glass, the reduced image of the illustration is seen to be 3 inches wide. Measurement of the illustration itself may show that it is 4 inches wide; it is thus seen that the cut must be reduced one-fourth, the entry being made in the proper space in the outline sheet.

An excellent practical method of determining the reduction is to first roughly determine about what would seem to be the amount of reduction. Let us assume that the reduction is to be one-half off. Make two short, distinct pencil lines on the cut, say, 2 inches apart. Place the scale or rule on the reducing glass and hold the reducing glass away from the cut until these two lines are so drawn together that they *appear through the glass* to be 1 inch apart as read on the scale held in front of the reducing glass. Similarly, if it is thought that a reduction of one-third may be desirable, two lines on the illustration 3 inches apart would be 2 inches apart when read through the glass, and again if one-fourth off, marks 4 inches apart on the illustration would appear 3 inches apart on the reducing glass, and so on. A still further improvement on this system is to make scratches with a glass-cutter or diamond at 1-inch intervals on the face of the reducing glass, thus making the application of a scale or ruler to the face of the glass unnecessary. This method of determining reductions is frequently necessary, as it is not always possible to see the whole illustration through the reducing glass, unless it is subjected to considerable reduction. As stated earlier in this chapter, care must be taken not to effect so great a reduction as to cause a merging of the lines or dots and consequent resultant "black" reproduced cut.

It is usually better to determine reductions by stating the quantity "off" of the illustration rather than by measurements. It sometimes, however, becomes necessary to determine the amount of reduction by stating a certain width or height of cut. It should here be stated that, in referring to dimensions of cuts, the horizontal dimension is always referred to as *width* and the vertical dimension as *height*, irrespective of the article represented. For example, the illustration might be that of a board lying down; the terms width and length as applied to the *board* would not here be used, but the *cut* would be spoken of as so high and so wide, the *width of the cut* in reality running with the *length of the board* represented, and the *height of the cut* running with the *width of the board* represented. As suggested, however, it is better to avoid mentioning dimensions of cuts, if possible, thus obviating possible confusion.

It sometimes happens that several illustrations of proper relative size to one another are all to be reduced. In this instance the amount of reduction of one of such cuts may be determined and the other cuts marked "to come down with —," describing such cut. The photoengraver will then place these all on one negative, thus insuring their equal reduction.

Successful enlargements are rare and can usually only be made in the cases of line cuts in which the lines are sufficiently near together and sufficiently distinct as to make this process possible. Enlargement of half-tones has the effect of making the screen coarser and the dots less distinct. However, enlargement being sometimes possible, the determination of the size of such enlargement of cuts may be made through the magnifying glass mentioned in Chapter III. The method is not so easy, as the magnifying tends to distort the image, but the process is, roughly, the reverse of that used in determining reductions.

A number of minor considerations in the reproduction of cuts arise, among which is the possibility of altering certain lettering. It is perhaps advisable to eliminate the name of the manufacturer which may appear on such cut, etc., such points being mentioned in the chapter on "Catalogue-Outlining," Chapter VI. Possible cases are provided for by the last line in the cut squares on the suggested outline-sheet form. (See Plate 8.)

In case it is desired to insert on the cut the name or initials of the issuer of the catalogue under compilation, such lettering can be inserted on the cut clipping, or on a drawing, if such is being made, by an artist at the photoengraver's. If the background on which the initials or name, or other lettering, is placed is dark, Chinese white should be used, and if the background is white, India ink should be used for the purpose. The photoengraver should be cautioned to use the same style of lettering on all cuts and, if possible, to have all the lettering done by the same man, as different artists use different styles of lettering. Also the artist should be capable of doing good lettering, as poor or wavy or immature-appearing letters on the faces of cuts detract from their appearance. Judgment should be used as to where the letters are placed. Artists not understanding the articles which cuts represent will sometimes fall into ludicrous errors, such, for example, as placing letters on that portion of a cut depicting a hole in the object which the cut represents. The letters should be made to look as though they were really on the object itself. It is therefore advisable to require all cut copy on which lettering has been done, or on which alterations have been made, to be submitted for O. K. before such cut clippings are photographed for reproduction.

Another point is the possibility of altering erroneous or inapplicable cut clippings. This is not so easy in the case of half-tone clippings, but excellent work is frequently done in altering and patching up line-cut clippings. If an illustration is applicable, with a minor exception or two, it will be well to submit it to the photoengraver and ascertain whether such cut can be so "doctored" as to properly apply. It sometimes happens that the doctoring of the cut will cost as much, or nearly as much, as a new line drawing, and if such is the case it will, of course, be

better to have a new line drawing made, as the original cut thus obtained is the property of the issuer of the catalogue and, if the catalogue is copyrighted, can not be copied.

In comparing the cuts on same or adjacent pages, attention should be given to the relative *perspective* of the illustrations. Let us take, for example, illustrations of trunks. Suppose that the left-hand illustration shows the left end of the trunk, whereas the right-hand illustration shows the right end of the trunk it will be observed that the two illustrations are not in proper relative perspective. The perspective to be used should be determined, and the other illustration or illustrations on the page (and possibly on adjacent pages) should be reversed when reproduction takes place, the notation being made in the "Treatment" line on the outline sheet, "reverse." In photoengraving, the process of reversing simply constitutes the reversal of the photographic plate when printing through onto the sensitized metal plate or, in case the process is that of stripping the film from the photographic plate and laying it on the sensitized metal plate, the film is laid on in reverse from the way in which it is ordinarily laid on. A point, however, here arises in reference to lettering. In case there is any lettering on the cut which is to be reversed, or in case lettering is ordered applied, it will be seen that all such lettering on a "reverse" cut must be placed backward on the cut copy in order to come out properly in the cut.

In reproducing half-tone cut clippings, a moment's thought will disclose the fact that the dots on such clipping (which are the result of the screen used in first reproduction) will conflict with the screen used in the camera when reproducing such half-tone clippings, a multiplicity of non-coincident dots resulting, giving the cut a peculiar appearance called "pattern." To overcome this trouble the photoengraver should be directed, if he does not follow the practice, to tip the half-tone cut clippings before the camera so that they will be reproduced diagonally on the photographic plate, the relativity between the screen on the cut clipping and that of the screen used in the reproduction camera thus being such as to somewhat overcome the difficulty above referred to.

Before commencing the reproduction of cut clippings or the making of original cuts, a contract should be made with the photoengraver covering matters of price, etc. These prices are usually given as so much for a minimum cut, the prices being different for half-tones and for line cuts, of course, with so much per additional inch, etc. The price method among different photoengravers is somewhat similar. Lower relative prices are usually obtainable where a number of reproductions are possible on one photographic plate, and this feature should be discussed with the photoengraver with the object in view, while allowing the photoengraver a legitimate profit, at the same time of effecting the greatest economy and lowest possible cost to the issuer of the catalogue under compilation.

It is not advisable to allow the photoengraver's bill to run until the job is completed, as checking is difficult over a considerable length of time. With every batch of cuts delivered there should be an accompanying bill covering all charges

against that batch, both as to artwork in lettering, alteration or original drawing, and as to reproduction. At the end of the month a full bill or a statement should be rendered, and, all the cuts having been checked against the memorandum bills, as per contract, etc., the memorandum bills may then be checked against the statement. There should be a distinct understanding with the photoengraver that all charges *within each month* should take care of everything that has gone through in that month, so as to lead to no future confusion. Some photoengravers are not very systematic in their offices and some system of periodical charging should be insisted upon.

Some system should also be followed for keeping track of clippings sent for reproduction and drawings ordered made. A good system covering this is to stamp, with a date stamp, on the outline sheet, the date that the clippings represented by such outline sheets are turned over to the photoengraver or when drawings of cuts are ordered. Any systematic means of keeping track of the delivery of cut copy and orders for drawings may, however, be followed. Some system is necessary, as, in the confusion of a rush in the photoengraving establishment, it sometimes happens that cut copy is lost. On receipt of cuts, and proofs of the same, the presence of all cuts against cut copy should also be checked.

If the delivery of cut copy is delayed until after the compilation of manuscript, the record of day of delivery may be made in the margin of manuscript, or on the back thereof, and the cuts may be checked against the manuscript direct, a small check mark being placed opposite the cut clipping pasted on the manuscript to show the presence of the cut.

Great care should be taken to select a high-class photoengraving concern to perform the photoengraving work for the catalogue, as money spent for inferior photoengravings is money worse than thrown away. The process of photoengraving seems simple, in consequence of which men formerly in other lines of business sometimes take up this line, as the profits seem large at first glance, poor quality of work frequently being turned out of such establishments.

Proofs should always be furnished with all cuts, whether original cuts or reproduced cuts, and care should be taken to see that proofs are furnished on the paper on which it is intended finally to print the cuts. For this reason, the paper to be used should be determined in advance, if possible, and a good supply of the same for use as cut-proving paper should be on hand and a supply furnished to the photoengraver for the purpose from time to time. These cut proofs may be used to paste on manuscript, and it is a good idea always to use such proofs for this purpose whether another cut exactly similar has been previously pasted on or not. This insures the proper identification of the cut when the manuscript goes to the printer for composition.

As above suggested, if it is decided to use manufacturers' cuts wherever possible, as soon as the use of such cuts is determined letters should be written to the manufacturers requesting electrotypes of such cuts. As described in Chapter XIV, it is desirable to preserve the type-forms, so that, therefore, the manufacturers

should be notified, in furnishing electrotypes, that the same are not to be returned. If a manufacturer can not allow the cuts to be retained, he should so notify, in order that cuts may be immediately sent to the electrotypist, an electrotype pulled therefrom, and the original cut returned at once to the manufacturer. Of course, cuts may also be borrowed for electrotyping from others than manufacturers, issuers of similar catalogues, etc. In writing manufacturers individual letters, a form letter may be used, according to the exigencies of the situation.

A system should also be adopted for keeping track of cuts requested from manufacturers. The system may be similar to that above suggested for keeping track of cut clippings and orders for original drawings.

In case cuts received from manufacturers or borrowed from others do not correspond exactly to the corresponding cut clipping on the manuscript, the cuts should be sent to the photoengraver's and proofs made on the proving-press, such proofs being pasted onto the manuscript at the proper place. Rough proofs of cuts made by a printer are not satisfactory for use as cut clippings for the manuscript.

CHAPTER XI.

PRINTING THE CATALOGUE.

IN order to gain a better understanding of this chapter, a visit to a printing establishment is advised, unless the reader is familiar with the processes of composition, printing, binding, etc. Nearly all printing establishments are glad to receive visitors, to show them through the establishment and to explain all processes. To obtain even a preliminary understanding of the various processes, it will be necessary to spend several hours in the printing establishment. After having read this chapter, other visits may be made from time to time.

In making decisions as to style of type, size of page, and so on, hereafter explained in this chapter, it will be advisable to ascertain the exact meaning of the various technical terms used by the printer. No effort will be made here to enter into a technical explanation of the art of printing. Recent editions of encyclopedias may be consulted and there are numerous books on the subject, the study of which the student may pursue, if he is so disposed. Though such study for the purpose of catalogue-compiling is not absolutely necessary, it is to be remembered that all knowledge is valuable, and that the greater the knowledge, and consequent mental training, the better equipped the student.

What is meant by becoming familiar with the more common technical terms used by printers may be exemplified by calling attention to the method of measuring the lengths of type lines. The unit of line measurement used is the "em," which is 1-6 of an inch; thus a column 3 inches wide is known by printers as an 18-em column. In case there is more than one column, the space between columns, for example, is not counted as a part of the column, the distance from one edge of the column to the other being considered only, and the space between columns being considered by itself. It is sometimes customary to allow a small amount of separating space between columns; a still further separation is effected by a vertical dividing rule, and in other instances a 2-em (1-3 of an inch) space is allowed between columns, omitting the vertical rule. These remarks are given as an example of the ease of understanding the subject when the proper technical terms applying thereto are used in its discussion.

Before taking any steps toward the preparation of catalogue manuscript it is necessary to decide on size and style of the proposed catalogue page. It is necessary to know what size the type-page of the catalogue is to be in order to decide on the size of manuscript paper. As described in Chapters III and VII, the total width of manuscript sheet should be twice that of the width of the type-page, from which, as described in those chapters, the margins of the manuscript are subtracted. The type-page is that portion of the page covered by type. The width of the type-page is the distance from the inside of one margin to the inside of the other margin.

As to length of page, it is necessary to know the number of lines to be used on the page in order to determine the length of the manuscript sheet, and the number

of horizontal faint lines to be ruled on the manuscript sheet. As explained in the previous chapters referred to, each horizontal faint line on the manuscript sheet represents one line of the body-type. The term "body-type" refers to the most-used type — the type used in the body of the page for sales information, general information, etc. Suppose, for example, that the body-type used is 8-point type, solid. By "solid" is meant that 8-point type is used without any leads (separating strips) between the lines. In this instance this arrangement of body-type would be considered as the standard type-page, and wherever a space the equivalent of a line of type was left between two type lines, such space would be counted as a line. Suppose, furthermore, for example, that 16-point type were used as a page caption, a single line of such 16-point type is self-evidently equal to two lines of 8-point type. If 10-point type were used as a cut designation or caption, the difference between that and 8-point type would not be considered sufficient to take into consideration, unless several lines of such 10-point type were used and it were necessary to figure very closely on the page.

Then, again, let us suppose that the body-type of the page is 8-point type, leaded, that is, spaced apart with those printers' spacing mediums commonly called leads. Eight-point solid, unleaded, type consumes about nine lines per inch and, when leaded, about seven lines per inch. It is better to use leaded lines, where 8-point type is used as the body-type, except in instances where it is necessary to crowd the reading-matter. Consequently, in the case of a type-page $9\frac{1}{2}$ inches long there will be 60 to 70 lines to the type-page, the lower limit of which should be indicated on the manuscript sheet by a heavy horizontal cross line sixty to seventy lines from the top of the sheet, below which ten more faint lines should be allowed for overrun and notes, as described in the chapters on the subject. Information should be obtained from the printer as to the exact number of lines which the body-type decided upon will take to fill up the type-page from top to bottom, exclusive of the running or decorative head. If the page is to be leaded, this should be taken into consideration. The manuscript sheet should contain the same number of horizontal faint lines to and including the heavy horizontal bottom line, below which should be ten more faint lines, as stated. This will allow for page caption, spaces, cuts and everything except running or decorative head. In other words, all the vertical spacing will be considered in terms of the body-type to be used.

It is therefore necessary to determine on the style of body-type and the length of page. The length of type-page is usually considered exclusive of running or decorative head, this head consisting of the name of the issuer of the catalogue, the location, and sometimes with a small decoration added. This, however, must be taken into consideration in determining the size of the *trimmed* page, that is, the full size of the page sheet. The plates illustrating catalogue pages show a running-head.

It is not necessary that every page be filled from the page caption to its lower limit. It is advisable to group kindred articles, as explained in Chapter V, the

logical structure of the catalogue being thus better effected. In the process of logical grouping, it will thus sometimes happen that pages are left "short" — very short, in fact, in some instances. To this there is no practical objection except perhaps a slight extra cost for paper and presswork; compiling and composition cost no more, and the offset in logical results is more than equalized. Though the appearance of these short pages is not objectionable, still, if disapproval from any source is voiced, it is an easy matter to "rake up" material in the nature of general information, special articles, etc., with which to fill such pages.

The style of binding must also be taken into consideration in determining the size of the page, for the size of page should take full advantage of the size of the original large sheets of paper from which the page-sheets are cut. That is to say, the full sheets of paper as carried by the paper houses will cut to a certain best advantage into catalogue-page sheets, the proper amount being allowed for "trim," but with no allowance for wastage. As catalogue editions are sometimes large, the difference in cost due to wastage of paper is a very important item. By taking advantage of the original full size of paper sheets, cut economically into catalogue-page sheets, the type-page may be made of the maximum size and cost of presswork thus relatively minimized. For example, the catalogue from which the plates representing catalogue sheets herewith were taken, used loose-leaf page-sheets trimmed to 10 by 11½ inches. These sheets were cut from original paper sheets 31 by 47½ inches, thus making twelve catalogue-page sheets per original sheet.

However, in this instance the catalogue referred to was a so-called loose-leaf catalogue. In other words, every page-sheet was separate; one margin was left wide, this margin being punched for insertion in a loose-leaf catalogue binder. The leaf was held in this binder by means of binder-screws passed through holes in the wide margin. While this method of binding has many advantages, as will be explained in Chapter XIII, each page-sheet must be larger than is the case where the catalogue is published in the form of a regularly bound book. Therefore, in determining the size of page to be used, the binding must be taken into consideration. As stated in Chapter XIII, experience shows that, where a standard four-illustration-per-page catalogue is published, the size of page-sheet, if to be used in a loose-leaf binder, should be about 10 by 11½ inches, and if to be sewed, the page-sheet should be about 9 by 11½ inches.

Another matter which must be taken into consideration in determining the size of page is the paper to be used. Of course, if the edition of the catalogue is to be large, a better price can doubtless be obtained by having the paper specially manufactured at the paper mill, in which case sheets of nearly any desired size can be obtained, within reasonable limits, of course. If, however, the paper is not specially ordered, stock sizes must be used and this will influence the size of type-page.

The character and quality of paper will depend upon the use to which the catalogues are to be put, and upon the character of the illustrations. If the goods represented are all high-grade and require fine-screen half-tone illustrations, glazed

paper will be necessary. If, however, the illustrations are not, in the majority, half-tones, and the book is to be put to more or less rough usage, a high-class manila paper, somewhat like wrapping-paper, but of much better class and well-calendered, will prove the most satisfactory. Extended consideration should be given to the selection of the paper to be used. Samples should be requested and trial pages should be printed and closely scrutinized, using, if possible, some of the cuts which it is intended to use in the proposed catalogue.

One of the latest departures in the use of paper for printing is that exemplified in the eleventh edition of the "Encyclopedia Britannica," in which India paper is used. American catalogues using India and other thin paper have also been printed. The object is to reduce the bulk of the volume, which is frequently a very material consideration. For example, the eleventh edition of the "Encyclopedia Britannica" is published in twenty-nine volumes, both in an India-paper edition and in an ordinary-paper edition. The India-paper edition occupies one-third of the space of the ordinary-paper edition and weighs eighty pounds, whereas the ordinary-paper edition weighs 240 pounds. The catalogues of a number of general hardware houses have reached such proportions as to bar their convenient use and are referred to by customers only in cases of extreme necessity. The reduction of the size of these volumes by two-thirds would doubtless increase their efficiency perhaps fifty per cent. However, the possible use of India paper should be considered with great care. While it is not so easily torn as might be supposed and, even if torn, the injury may be more or less immaterial, India paper has more or less of a tendency to wrinkle. The rule in reference to the use of India paper should be: Avoid India paper unless the catalogue is likely to be a large and bulky one. If the catalogue is large and bulky, the advantages of the use of India paper will offset the disadvantage, and India paper should perhaps be used. When printing *special* cuts, especially colored cuts, it will, however, be necessary to use ordinary paper in insert form, as India paper is not suitable for the purpose, though ordinary cuts and especially line cuts may be printed on India paper satisfactorily.

Much of the matter herein contained is written on the assumption that no form or size of page has been adopted. In the case of concerns of long standing, catalogues may have been published, the form of which is perfectly satisfactory. In such cases it will be advisable, for self-evident reasons, to continue the form. However, even in such cases the size of type-page and form of page should be carefully scrutinized, as it is possible that there may be a gain, both in cost of publication and in sales efficiency, by change in the size and form of the page. In cases where the type-forms have not been preserved, change of form is not objectionable, though even in this case change of form is not advised unless there will be a distinct gain.

In cases where catalogues have been previously made, there will doubtless be familiarity with the cost of catalogue composition, printing and binding. This is a question, however, which should be given careful consideration, as, under the most favorable circumstances, catalogue-making is expensive. The author hesitates to

give a cost of compiling, that is to say, department cost, as this is largely a question of efficiency and is modified by so many circumstances that an estimate might, in some cases, greatly exceed and in other cases fall greatly short. Cost of composition, printing, paper and binding can, however, be determined in advance by determination of the page-form, selection of the paper and decision on the style of binding. Extended consideration should be given to these selections, a careful estimate of the probable minimum number of pages made and bids obtained. Separate bids should be obtained on the paper, on the binding, and on the composition and printing. If the composition and printing are done by the same printing concern there will be no advantage in obtaining separate composition and printing figures. It may be, however, that the composition and the printing will be done by separate concerns, in which case separate figures will be necessary. The figures on composition and printing should be per page, with a certain minimum number of pages guaranteed, the same figure per page to apply to additional pages.

It will be necessary to know the number of copies to be printed, in other words, the size of the edition. In case catalogues have been previously published this problem will not be difficult. If, however, no previous catalogues have been published, it will be necessary to go over the list of customers and to estimate the probable number of non-customers and new accounts, together with certain allowance made for "trade" copies and exchanges, copies for friends, copies to be used within the concern, etc. Great care should be taken, however, not to publish too large or too small an edition. If the edition is too large, binders, paper and printing will be wasted and, worse than this, it will be felt that the balance of the edition can not be discarded even if out of date. On the other hand, if the edition runs out too quickly the cost of producing an additional small edition will be excessive. A sufficient number of surplus copies, covering a reasonable period, based upon the adopted policy of reprinting, should be allowed. If a loose-leaf system, capable of amendment and revision, as described in Chapter XIII, is adopted, possibly the number of surplus copies in the edition will be larger than in case the catalogue is published in regular bound form.

In addition to determining size and general style of page, and in view of the necessity of following a definite form when compiling, the detailed typography of the page should be determined in advance, as far as possible. In determining the details of the type-page, discussion should be had, if possible, with the chief compositor or, if the composition is to be by linotype, with the linotype operator.

It will not be advisable to proceed with the composition of the type-pages until a quantity of manuscript has been compiled, so that considerable time may intervene between the beginning of compiling and the beginning of composition. Just preliminary to the beginning of the composition, the matter should be gone over again and the style and form of type-page finally settled, a few pages should be set up, examined and revised until a satisfactory form is determined.

In view of the advisability of preserving type-forms (See Chapter XIV), with which to repeat existent pages in subsequent editions, it is advisable to use the

linotype in composition of the type-pages of the catalogue. In any case linotype composition is cheaper and better than individual-type composition. If the edition is an extremely large one, it will doubtless be necessary to have the pages electrotyped, as long runs wear down both the cuts and the type, for electrotpe metal stands the wear better than type-metal, and even when worn down is capable of reproduction from the original type-forms, if the same are preserved.

In determining the typography of a catalogue page a few points to be observed are the following: The page captions (general name of merchandise on page, not running, decorative, head) should be in bold-face type, all caps. (capitals) of at least 6 points greater magnitude than the cut designations (cut captions). In the plates illustrating catalogue pages, 14-point type is used for page captions.

Cuts should balance and be properly "centered" in each column. The center of the cut should not be the center of the cut block itself, but the "*artistic*" center of the illustration; the appearance of the article represented is to be taken into consideration.

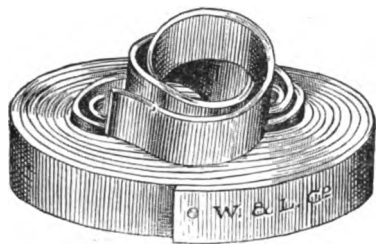
Main cut captions should be in bold-face type, all caps. (capitals). The subordinate cut captions should be in bold-face type, upper and lower case (first letters capitals, other letters small letters). Both main and sub designations should be in type of the same magnitude. In plates illustrating catalogue pages herewith, 10-point bold-face type is used for the cut designations.

Lists and tabulations of lists should, with the exception of tabulation headings, be in ordinary light-face type of the magnitude and style selected for the body-type. By the term body-type is meant that type used in the major portion of the printed matter. The body-type selected in the catalogue represented by the plates was 8-point type. Tabulation headings should be in bold-face type of the same magnitude as the body-type.

In tabulations it is inadvisable to use ditto marks except in the case of horizontal tabulations at the end of each line of which appears the sales unit, it being permissible to ditto such sales unit. Refer, for example, to Plate 14½. It will be noted that the list tabulations of the various kinds of belting illustrated and listed at the top of the page contain ditto marks only under the sales unit, which is in two instances "Per 100 ft.," and in two other instances, "Per ft." Suppose, for example, that under "Flat Belting" the word "Flat," near the left of each line, had been dittoed, both the appearance and the effect would have been injured.

Capitalizing should be avoided as far as possible, but in all cases the names of articles should be considered as proper names, and even if the names are compound (two or more words), the first letters of such words should be capitalized. In the list tabulations it may be necessary to use capitals in the first letters of distinguishing words, but in sales-descriptive matter and in general information capitals should be used sparingly. In the catalogue department of which the author was manager, the tendency to overcapitalize was known as "fableizing," on account of the resemblance to the old-style printing of "Æsop's Fables" and the like. Doubtless the intention in capitalizing words is to emphasize such words, but the

FAN BELTING



FLAT BELTING

$\frac{3}{4}$ in., Flat	Per 100 ft.,	\$18.00
$\frac{7}{8}$ in., Flat	"	21.00
1 in., Flat	"	24.00
$1\frac{1}{4}$ in., Flat	"	30.00
$1\frac{1}{2}$ in., Flat	"	36.00

Single Thickness.

Leather

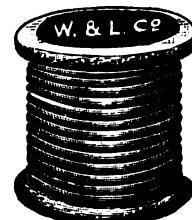


FLEXO PATENT V BELTING

$\frac{5}{8}$ in., Flexo	Per ft.,	\$0.50
$\frac{3}{4}$ in., Flexo	"	.50

PLAIN V BELTING

* $\frac{1}{2}$ in. x $\frac{3}{8}$ in. x $\frac{1}{4}$ in. ...	Per ft.,	\$0.25
* $\frac{3}{4}$ in. x $\frac{3}{4}$ in. x $\frac{1}{4}$ in. ...	"	.35



ROUND BELTING

$\frac{1}{4}$ in., Round	Per 100 ft.,	\$4.00
$\frac{5}{8}$ in., Round	"	6.00
$\frac{3}{4}$ in., Round	"	12.00

Round

Solid Leather

SPECIAL INFORMATION, FLEXO V BELTING

FLEXO BELTING is made in sections, of special-tan hide, thoroughly stretched and split to a uniform thickness. These belts are waterproof, pliable, tough, and noiseless. The rivets and burrs used in their manufacture are all of steel, coppered to prevent rusting.

As shown by the illustration, Flexo Belting is made up of short tapering pieces of leather, which successively overlap, this combination forming a belt in practically V form, at the same time with sufficient of irregularity to present an excellent friction surface. The edges of the pieces are scarfed, to completely effect a V form. The belt, being made up of short pieces, can be lengthened, shortened or repaired at any point. Flexo Belting is the best form of motor vehicle fan belting yet devised. Flexo Belting is a patented article.



STEEL BELT LACING

	Per box.
No. 110—For 2 ply ....(100 in.),	\$1.10
No. 111—For 3 ply ....(100 in.),	1.65
No. 112—For 4 ply ....(100 in.),	2.20

For Flat Belting.

Boxes contain assorted lengths.



WIRE BELT HOOKS

	Per box.
No. 16—For $\frac{1}{4}$ in. ....(500),	\$1.00
No. 15—For $\frac{5}{8}$ in. ....(500),	1.25
No. 14—For $\frac{3}{8}$ in. ....(500),	1.50

For Round Belting.

Sizes denote size of belt.



ROUND BELT COUPLINGS

	Per doz.
$\frac{1}{4}$ in. Couplings	\$2.00
$\frac{5}{8}$ in. Couplings	2.50
$\frac{3}{4}$ in. Couplings	3.00

For Round Belting.

Sizes denote size of belt.

GENERAL INFORMATION, FAN BELTING

It is of first importance to keep the fan, the function of which is to assist in the cooling system of the engine, operating to full efficiency. The Fan Belt cannot, of course, be kept too tight, or unnecessary strain will be thrown upon the belt. At the same time, if a Fan Belt is too loose, there is more or less slippage, and over-heating of the engine results. If over-heating is evident, an immediate examination should be made to see whether or not the Fan is operating with full efficiency.

*Dimensions on plain V Belting are given in following order: First—width on wide edge; Second—thickness; Third—width on point.

purpose is defeated by the broken-up appearance imparted by multiplicity of capitals. The following extract is actually taken from a recently printed catalogue: "In Ordering Wire Ropes, be sure to Specify if Dimensions Given are Diameter or Circumference. Be Very Particular to State Style of Rope Wanted, also the Grade or Material, either Iron or Steel. If Uncertain which will Best Answer your Purpose, Please Indicate the Use to Which the Rope is to be Put, and we will Supply the Style and Quality Best Adapted to the Needs Stated." We do not understand why the first letters of *all* of the words in the above were not capitalized. The appearance would have been better, and certainly nothing was gained typographically by capitalizing the first letters of a part of the words.

Sales-descriptive matter should be in light-face body-type, bold-face type being avoided unless it is positively necessary for purposes of emphasis. The same remarks will apply to general information.

Packing and weight information, following general information as described in Chapter VII, should be printed in bold-face type, the body-type selected for the page being used for this purpose.

In certain instances of great importance footnotes should be printed in bold-face type. Ordinarily footnotes should commence at the left side of the bottom of the page, but judgment should be used, and, if the appearance is improved, such footnotes should be "centered-up" on the page. Footnotes should run full-page width and not column width.

The style of type selected will be to some extent a matter of taste, but will also be governed by utility and, if the composition is to be by linotype, whatever style of type-matrices are available to the linotype.

Different styles of type have different names. The body-type used in the plates illustrating catalogue pages is 8-point De Vinne, the cut captions being 10-point De Vinne Antique. The page captions are 14-point Cheltenham Bold.

Several variations of the same type are possible for purposes of distinction, emphasis, special tabulation, etc. For example, let us take the 8-point De Vinne used in the plates. This type may appear in ordinary light-face upper and lower case type; bold-face upper and lower case; light-face, all caps., and bold-face, all caps., thus giving quite distinct appearances. The uninitiated would frequently declare a line of type which is printed in all caps. to be of greater magnitude than a line printed in lower-case or upper and lower case, that is, in all small letters or in small letters with first letters of words capitals. A good way to take advantage of light-face type, all caps., is to use this style in printing the name of the article under description wherever the same appears in sales-descriptive matter or in general information. See, for example, Plate 13, in the sales-descriptive matter and general information of chain-grip adjusters, cross chains and connecting hooks it will be noted that the names of the articles are printed in light-face type, all caps.

The other variations may be used in different ways. For example, it is sometimes necessary to still further subordinate a subcaption. The cut subcaption

being printed in 10-point type, for example, any word or words still further subordinate to the subcaption may be printed in 8-point bold, upper and lower case.

In explaining the possible variations of type above, it is assumed that the linotype will be used to set up the pages. The matrices for the different styles of type are furnished by the linotype company in so-called "magazines," in which, due to the nature of the linotype machine, only a certain number of variations in the type are possible. For example, in the case of 8-point De Vinne above cited, the emphasizing type is bold-face (heavy-face) type. The emphasizing type may be *italics*, in which case there will be no bold-face matrices present in the magazine. Of course, if single or ordinary type is used, the pages being set by hand, any desired combination may be obtained.

A close study of the minute details of typography, both in the plates representing catalogue pages published herewith and in the pages of other catalogues, is recommended, as are frequent discussions with a high-class and intelligent compositor, if possible.

Great care should be exercised in the selection of the printing establishment in which the catalogue is to be set up and printed. All printers are not equipped to handle catalogue printing and binding. Even if the work is good, in some instances the time required to "turn out the job" may be excessive. Some printing-houses may bid low and turn out poor work, a protest against which may prove unavailing, may result in a compromise and in any case will cause delay. On the other hand, the figures of certain printing-houses which make a specialty of catalogue-printing will be found to be high, a fact sometimes accounted for by the reputation of the house, a character of "insurance," the premium of which some concerns are willing to pay.

In other cases the higher price is accounted for by the fact that, in the experience of such printing establishments, much rearrangement of pages, and sometimes, indeed, actual compiling must be performed after manuscript is delivered for composition. In such cases it may be difficult to convince the printing-house that *clean, final, page-for-page manuscript* will be handed in as "copy," and if such proves to be the case and the figures are not modified, it will be well to search until a printing-house is found of good reputation with equipment and ability to turn out good work, and willing to contract on a "page-for-page copy" basis.

When sufficient manuscript has been prepared to make it worth while to commence the composition of the type-pages, the cuts for catalogue illustrations must be ready. As cuts are received from manufacturers and from the photoengraver, they should be placed on printers' "galleys," which should be either borrowed from the printer or purchased outright.

Galleys are pressed-steel type trays with riveted heads, the usual size being 8½ inches wide and 23¾ inches long, with both sides and one end raised, and are used for the purpose of holding type-forms and cuts while the same are not in use. One end is open to enable the forms or cuts to be readily slid off onto a table or bench

for the purpose of making up into printing-forms, etc., and for the purpose of sliding back onto the galley in the reverse operation.

The galleys containing cuts can be placed on shelves underneath the cut-sorting bench in the catalogue department, and in case of shortage of room can be placed on top of one another by interposing pieces of cardboard of the same size as the galleys. Galleys should not be placed directly on top of cuts without the interposition of pieces of cardboard.

It will be well, if possible, to turn over for composition manuscript complete by divisions or departments. Of course, if this is not possible, blank or "dummy" sheets may be inserted to represent missing pages. It is better to turn over divisions in their natural consecutive order in the catalogue, but this is not usually possible, as some divisions prove much easier to compile than others, and, then again, certain divisions may be held back and not completed due to the absence of cuts, the lack of packing and weight information or some other reason. It is advisable, therefore, to number the divisions in their consecutive order and then temporarily number the pages of each division from 1 forward. Thus, for example, let us assume that we are temporarily paging the third division of the catalogue. Page 1 would be page 3-1, page 2 would be page 3-2 and, continuing the paging, 3-3, 3-4, 3-5, and so on.

In numbering the pages, the title-page of the division should be taken into consideration and should be page 1 of the division. It is possible that page 2 of the division may not contain straight catalogue matter, but may contain some form of descriptive matter as will be explained in the next chapter under the subject of "Preliminary Pages, Indexing, etc." If the title-page and the next page following have not been prepared, dummy sheets may be temporarily inserted to represent these pages, the first page of actual catalogue matter being page 3.

Thus having established the method of temporary page-numbering, it next becomes necessary to identify the cuts. For a clearer understanding of this, for example, let us refer to Plate 11. It will be noticed that there are three cuts across the top of the page and two cuts across the bottom of the page. The three cuts at the top of the page, reading from left to right, will be known as Cut A, Cut B, and Cut C, and the cuts at the bottom of the page, also reading from left to right, as Cut D and Cut E. Let us further suppose that this same page is page 5 of division 3. The cuts on the page would therefore be known in their consecutive order as Cut 3-5A, Cut 3-5B, Cut 3-5C, Cut 3-5D, Cut 3-5E, and will be so identified by heavily marking the edges of cuts with such numbers and letters on the edge of the cut, either with black lead-pencil or with indelible pencil, wetting that portion of the cut which is marked if indelible pencil is used. Gummed labels are sometimes marked and attached, but this is not positively necessary unless the cuts are old ones and have become so blackened as to make pencil-marks directly on the wood blocks of the cuts indistinguishable. Cuts should be marked on the *edges* and not on the backs, the right-hand edge being used wherever possible. It sometimes happens that the grain of the wood prevents marking on the right-hand edge, in

which case the alternative should always be the bottom edge of the cut, thus obviating the possible examination of all edges when hunting for the cut identification.

In marking cuts the page of manuscript should be laid out and each cut carefully compared with the cut clippings pasted on the face of the manuscript. It is, of course, evident that the cut is in reverse, just as type is in reverse. As cuts of similar articles are frequently difficult to distinguish, a very careful examination should be made, and in case of doubt, a mirror should be used to reverse the cut while examining, or an impression should be taken and comparison made. An impression for the purpose of comparison may sometimes be made by inking from an ordinary inking-pad and taking the impression on a pulpy paper or on a blotter. Care should be taken, however, to clean off the ink, otherwise the face of the cut will frequently be injured. Benzine may be used for the purpose of cleaning ink from cuts.

As cuts are compared, the same should be numbered for identification as above described and placed in a galley. Cuts of succeeding pages should be placed in rough, not necessarily accurate, consecutive order on galleys, running from the back of the galley forward to the front or open end of the type-tray. The cuts, on galleys, should be delivered to the printer along with the manuscript sheets, ready for composition, on which clippings of such cuts appear.

It will sometimes happen that it is not possible to furnish all cuts, a cut here and there being absent. A supply of small blocks of wood, of the same thickness as the cuts, about 3 by 1½ inches, should be obtained from a planing-mill, and, wherever a cut is missing, one of these blocks should be marked with its cut-identification number and placed on the galley to act as a "dummy" for such missing cut. The compositor will thereby know at a glance that such cut has not yet been furnished, and will make up the page in which the cut is missing with a blank space allowed for the subsequent reception of the cut.

The next step following composition is proofreading. Under the system described in this book, every page is determined in advance, and if the system as described is followed, no difficulty will be encountered. Of course, it will happen that from time to time miscalculations will be made and that there will be an overrun in the length of the page, in which instance, when proof is pulled of such overrun page, an extra-large piece of proof paper will be used.

Catalogues are sometimes compiled simply haphazard with no advance determination of pages. Under such system the matter is simply made up and proofs pulled by the yard, so to speak, on long galley sheets, and subsequently cut up and arranged in page-form.

In the system herein described, proofs should be pulled one page at a time, and if any pages overrun, that is to say, are longer than the maximum length of page decided upon, the compositor should make a pencil-mark at the bottom limit with a clear pencil notation calling attention to the overrun. It will then be necessary for the catalogue department proofreader to make such changes as will bring the page within its proper limits.

It will be best, if possible, for the manager of the department to act as proof-reader and to read the proof aloud, having some one, whose wide-awakeness and ability can be counted on, to "hold copy," the "copy" being the manuscript.

The first step in proofreading is to examine the cuts, careful comparison of each cut being made with the manuscript to see that the proper cuts are used. Next, the cuts should be carefully examined to see whether the same are in proper *balance*. It is to be noted here that all page elements, assuming a standard two-column page, are to be in balance, that is, exactly opposite. If this form is varied, it should be varied consistently, either the cuts running down one side of the page, or at diagonally opposite corners of the page, or in any other consistent manner adopted. If, however, the cuts come *near* being in balance they should be put *absolutely* into balance. Compositors do not, in general, understand this system, and it will be found, quite early in the process, that it will be necessary to have a distinct understanding, personally, with the "make-up man" or "make-up men" (compositors). The plates representing catalogue pages published herewith should be, if necessary, shown to the compositors, unless the compositors are familiar with the book and its mission.

The next step will be to proceed to *detailed* proofreading, the temporary page number being called off first, next the page caption, then the cut designations, after which the other page elements will be read in regular order. Preferably the matter under the upper left-hand cut should be read first and then the matter under the upper right-hand cut, then the balance of the page in the same order.

While reading proof, the form should be constantly watched to see that it is not diverged from, seeing that all elements are in balance, and that the style of typography adopted and directed is being complied with by the compositors.

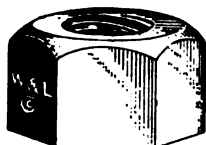
There is a standard form of proof-correction marks, but the author found it necessary to adopt some special methods of his own, of which there are examples in Plate 15. It may, however, be better to follow whatever system of proof-correcting is used by the printing-house which has been employed to compose and print the catalogue, providing such system of proof-correction marks covers all points of correction which arise.

It will be necessary, *finally*, to have at least two proofs, and possibly three, as it may be desired to submit proofs to other individuals or departments for examination. There should, however, be but one copy of the *first* proof of such page. This proof may be stamped with a rubber stamp reading "Send Revised Proof," dated, if it is deemed advisable, and initialed by the department proofreader. It may then be understood that, when the revised proof is sent, at least two copies and possibly three copies of the same are to be sent. It is advisable, if possible, to confine the subsequent proof to two copies. Certainly, more than three copies make the work complicated and difficult.

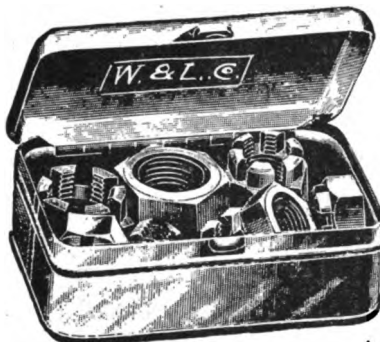
As revised proof is received, this should be compared with the original or first proof, one copy of the revised proof being retained and the other copy returned to the printer O. K.'d along with the first proof.

NUTS

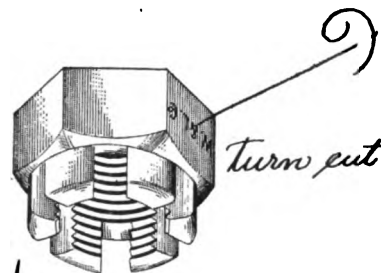
lower cut



Semi-Finished, Hexagon



Assorted, Castellated



Milled and Turned, Castellated

A. L. A. M. STANDARD NUTS

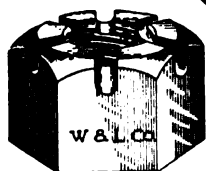
w. f. s. m

Threaded												
†Bolt, In.	Width, In.	Thick., In.	Hole, In.	Threads, per in.	Per 100	†Bolt, In.	Width, In.	Thick. over all, In.	(.....Slots.....) Width, In.	Depth, In.	Threads, per in.	Per 100
¼	½	¼	⅜	28	\$2.00	¼	¾	¾	¾	¾	28	\$3.00
⅝	¾	⅝	½	24	2.50	⅝	¾	¾	¾	¾	24	3.75
¾	¾	¾	½	24	3.25	¾	¾	¾	¾	¾	24	4.75
⅞	¾	⅞	½	20	3.75	⅞	¾	¾	¾	¾	20	5.50
½	¾	½	½	20	4.50	½	¾	¾	¾	¾	20	6.75
¾	1 ⅞	¾	½	18	6.50	¾	1 ⅞	¾	¾	¾	18	8.75
¾	1 ⅞	¾	½	16	8.50	¾	1 ⅞	¾	¾	¾	16	12.75
						1	1 ⅞	1	¾	¾	14	18.00
											14	26.25

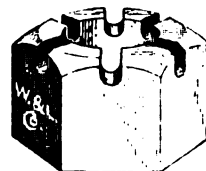
*Assorted, ⅝ to ¾ in., inclusive.....Per box, (15), \$0.80

The Association of Licensed Automobile Manufacturers, (A. L. A. M.), adopted a certain standard of thread, (so many threads per inch), as differing from other standards. The above illustrated SEMI-FINISHED, PLAIN NUTS, and the MILLED AND TURNED, CASTELLATED NUTS are both threaded A. L. A. M. Standard.

The Castellated Nuts, it will be noted, are of a style different from the Castellated Nuts shown at the bottom of the page, the former style being one specifically adapted by the Association of Licensed Automobile Manufacturers.



Standard Threaded



Blank

CASTELLATED NUTS SEMI-FINISHED

†Bolt, In.	Width, In.	Thickness over all, In.	(.....Slots.....) Width, In.	Depth, In.	Blank Per 100	(.....Threaded.....) Threads, per in.	Per 100
¼	½	¼	¾	¾	\$2.40	20	\$3.00
⅝	¾	⅝	¾	¾	2.75	18	3.75
¾	¾	¾	¾	¾	3.90	16	4.75
⅞	¾	⅞	¾	¾	4.50	14	5.50
½	¾	½	¾	¾	6.40	12 or 13	6.75
¾	1 ⅞	¾	¾	¾	7.80	11	9.75
¾	1 ⅞	¾	¾	¾		10	12.75

*Assortment consists of 4 each ⅝, ¾ and ⅞ in., 2 ½ and 1 ⅞ in.

†Size of Nut is determined by size of Bolt on which it is to be used.

In reading corrected (revised) proof, it will be necessary to examine the matter immediately adjacent to the correction, especially if the pages are being composed by linotype. As indicated by its name, the linotype machine produces an entire line of type at once by a system of setting type-matrices so as to form a mold into which molten type-metal is automatically injected, thus producing a "slug" which constitutes a solid or molded line of type. It will be seen that any correction in the line, even so slight as one letter or a punctuation mark, calls for the recasting of the slug representing this line; so that the entire line of type must be reread when reading corrected proof. Furthermore, in replacing the slug, this may have been replaced at the wrong line, so that it is advisable not only to reread the entire corrected line, but to glance at the line above and at the line below, as a guard against such possible misplacing of slugs.

If there has been much correcting on the page, a good system is to reread the page by what is called "first-word reading." The copyholder will hold the original proof and the proofreader will hold and read from the corrected (revised) proof, reading simply the first words, or parts of words, of each line all the way down the column or the page as the case may be. This system may be modified by reading simply portions of the page, in which a number of corrections have taken place, in this manner, for the purpose of checking against possible misplacing of slugs. All actually corrected lines should, as above stated, be read, however.

The manuscript sheets or "copy," as such sheets are usually designated by the printer, are returned with the first proof and should be retained in the department for future reference, and not again sent back to the printer. There should be an advance understanding with the printer covering this point, as the manuscript sheets, containing side notes, etc., become a valuable record.

The next step is to arrange some system of making up a "dummy catalogue" out of the proof sheets. About the neatest method is to use an invoice scrap-book with pages large enough to permit the pasting thereon of the proof sheets of the catalogue pages. Such an invoice book should be laid off by pages to correspond to the divisions of the catalogue, it being assumed that the approximate number of pages of all divisions is known. In case of doubt, simply allow an ample number of pages for each division. Both sides of each sheet of the scrap-book should be used, the right-hand pages being odd numbers, the left-hand pages being even numbers. In case of subsequently inserted pages, a page can be cut from the back of the scrap-book and pasted into the space where the insertion is made, such added or inserted pages being designated by half numbers or by letters of the alphabet, etc. The best proof paper, for the purpose of pasting in a scrap-book, is 13-pound French folio, which is of the tissue-paper type. However, the point is not a material one and may be left to the convenience of the printer.

In case, in subsequent examination of proof, errors are discovered or further changes are desired to be made, the proof should be removed from the book and forwarded to the printer for further revision. For this reason the pages should

be pasted into the scrap-book with a small quantity of paste only at each corner of the proof, thus enabling easy removal, if subsequently necessary.

In pasting proof into the scrap-book, the title-page of each division, together with the succeeding page thereto (providing the same is not a page of catalogue matter but is used as a page for a general article of some sort as described in Chapter XIII), should be taken into consideration and space left therefor, if such pages have not yet been composed.

Page-numbering can not take place until all consecutive pages from page 1 of the catalogue are present or accounted for. The term "accounted for" may mean that such page has not yet been made up, but is being held open, in which case a dummy sheet can be inserted in the scrap-book in the place of such page and the actual page subsequently supplied.

Page 1 of the catalogue should be the title-page of the first division of the catalogue, that is to say, the title-page of Division 1. The main title-page of the *catalogue*, together with such pages as Introduction and Explanation, Table of Contents, Index and other preliminary pages, will of necessity have to be compiled and composed after the completion of the body-pages of the catalogue.

Page-numbering should be performed with a numbering machine, on the pages of the scrap-book copy of the catalogue, it being remembered that the right-hand page is always odd and the left-hand page always even. The numbering should be carefully checked back, and, again with a numbering machine, transferred onto the printer's copies of proofs, which should still again be checked back with care. The type of the page numbers will be inserted at the printer's at the time the page forms are locked up into press forms, unless the composition has been by consecutive pages from page 1 forward. In this case there is no reason why the manuscript sheets themselves should not be numbered and the type set in at the time of composition of pages, unless of course, it is possible that subsequent pages of manuscript may be inserted.

Where the catalogue is made up in divisions, as recommended herein, the result is about the same as would be the case if a number of small volumes, previously published separately, were gathered together and bound into one volume, the title-page of each of these volumes being bound in along with the volume itself. Such being the case, the possibility of the last page, for example, of Division 1 turning out to be an odd-numbered page (let us say page 73) arises. As the title-page of Division 2 must necessarily commence on the right hand or odd-numbered page, in this instance page 75, there is thus left an intervening even-numbered page, page 74. This page must either be left blank, under this system, or another page of manuscript matter must be "dug up" and inserted, or, as explained in the next chapter, this page may be used for a general article. If, therefore, the division system, with the title-pages thereof, commencing on an odd or right-hand page, is used in the catalogue, the possibility of the last pages of divisions ending odd instead of even must be watched and provided for in the page numbering, as directed.

It is not advisable to commence printing the catalogue until it is certain that all manuscript will be ready in time to make the operation "come out even." This matter should be discussed with the printer, and further prospects for production of manuscript, if the same has not been completed, and the conditions prevalent in the printing establishment, should be given consideration.

The process of printing, proper, that is to say, the locking up of the pages in press forms, the "making ready" of the forms, and the actual taking of impressions by press, is all considered one process and is an art in itself, separate and distinct from the processes of composition and typesetting. The pages must be carefully locked up in type-forms, consideration being given to position of all matter on each page and its proper securing, as indicated by the term "locking up."

The *making-ready* process is that process by which proper impression by type and cuts is effected. It is assumed that the type, being of proper thickness and of uniform face, will give the proper impression without any further "doctoring" in making ready. Such, however, can not be considered to be the case with the cuts, though zincotypes or their electrotypes, and electrotypes of good woodcuts, should not require much making ready, providing the cuts or the electrotypes have been properly made and mounted. It sometimes happens, however, in the case of all kinds of cuts that, though the wood block with which the cuts are backed up is intended to be made of a thickness so that the cut as a whole will be type-high, subsequent shrinking or swelling of the block may cause such variation that a little wood must be shaved off the back, if the cut is too high, or, if not high enough, it must be "underlaid" by pasting a sheet of pasteboard or cardboard, of the proper thickness, on the back of the block.

The character of the face of half-tone cuts or their electrotypes is usually such that it is necessary to effect the proper impression either by slightly raising the surface of the cylinder of the press, by means of a piece of paper at this point, pasted onto the cylinder, or by means of a depression opposite the cut in order to reduce the intensity of the impression. In detail this process is as follows: The locked-up press form having been placed on the bed of the press and fixed into its proper position according to the exact size of the sheet of paper on which the form is to be printed, a sheet of suitable hard-surface paper is pressed tightly onto the cylinder of the press, which is then run and a sheet or two "pulled." The press will, of course, have been properly adjusted and regulated so that any inequality of impression may be remedied by adding or subtracting sheets of paper from the cylinder of the press. By examination of one of the sheets pulled, inequalities of impression will be detected, some portions showing too strong an impression and other portions too light an impression, and being technically known as "high" and "low" places. These places are equalized by cutting away from a sheet pulled from the press, areas covering the high places, and pasting on pieces of paper of varying thicknesses, to cover the low places. After the sheet has been prepared, the same is affixed to the cylinder of the press at the proper position to effect the desired object.

Arrangements should be made for receiving at least two press proofs from each run. Rough press proofs, pulled as soon as the form is in place and before it is made ready, should be sent to the catalogue department for examination. Provision should be made for hanging up the proof on the wall where good light will be thrown on it. One member of the department should then hold the proof scrap-book and another should examine the press proof, first calling off the page numbers and seeing that they are placed on the proper corners of the pages, odd numbers being on the upper right-hand corners and even numbers on the upper left-hand corners. Of course, the printing takes place with a form of all odd numbers or all even numbers at a time.

Next, the cuts should be examined to see if they are the proper cuts and are *right side up*. Next the form should be examined from some distance to see if the cuts form the proper *artistic balance*, first examining to see whether the cuts are on their *artistic centers vertically*, and next on their *artistic centers horizontally*, and, in the case of *balanced* pages, if the cuts are in balance.

A general examination of typography should then be made to see whether all the page elements appear properly centered and properly balanced and whether or not any type seems to be missing, broken or crooked.

Notation should be made of any corrections or changes and the same should be telephoned to the pressroom at once.

As soon as the form has been made ready, another press proof of the made-ready form should be sent and any corrections or changes checked, and cuts examined to see whether the same come out clear and distinct, and also, *still again*, if the same are right side up. This last precaution is necessary because cuts are sometimes removed from the form by the pressmen in making ready, for the purpose of either lowering or raising their height, as has been previously explained, and in returning them to the form may be turned over and the mistake not noticed.

Examination of the made-ready proof should be made promptly, as otherwise the press will be delayed, and the result of the examination should be telephoned *immediately* to the pressroom.

Of course, it is evident that the first or rough press proof may not show many of the cuts in a clear and distinct form and this can not be expected until the page has been made ready. It will frequently happen, however, that an examination of the made-ready proof will show too heavy or too light an impression in the case of certain cuts, the pressmen not being familiar with the character of the article represented, and having interpreted the illustration somewhat differently than one acquainted with the articles represented would interpret it. In other words, the matter of opinion will sometimes enter and correction or change of "make-ready" may be necessary.

The nature of the cut itself, however, may sometimes prevent a change. Additional emphasis can sometimes be given to certain cuts by running a little more heavily with ink on that particular side of the page, or if less emphasis is desired, the feed of ink may be reduced, this method, of course, having rather narrow limits.

It is advisable to retain both the first press proof and the made-ready press proof for future reference in case of misunderstanding, and a special place on the wall can be prepared for the reception of this somewhat voluminous file of press proofs. It will, no doubt, be appreciated that a number of pages are printed at once, on the original large sheets, which are subsequently folded, if the catalogue is to be a sewed book, or cut up into individual page-sheets if the catalogue is to be bound in loose-leaf form.

CHAPTER XII.

PRELIMINARY PAGES, INDEXING, ETC.

AS explained in the last chapter, the manuscript of all of the preliminary pages can not be satisfactorily compiled until proofs of all of the pages have been received and until the pages have received their page numbers. The reason is that it is not advisable to index from manuscript sheets, due to the possibility of change in form at the time the pages are being set up. As also explained in the previous chapter, the preliminary pages must be given a set of numbers of their own, the regular page numbering of the book commencing with the first page of the first division of the catalogue proper. Preliminary pages are usually numbered with lower-case roman numerals, namely, i, ii, iii, iv, v, vi, and so on, the pages being numbered at the same corners and in the same manner as regular pages are numbered.

It is sometimes customary to insert, immediately following the front cover, a blank sheet, but the pages of this sheet do not bear numbers, the same being present simply for the purpose of protecting the title-page. Correspondingly, a blank sheet usually follows the last page in a book, coming between this last page and the back cover, the blank sheet also bearing no numbers. The author does not believe in the insertion of these blank sheets, as they are entirely unnecessary, serve no good purpose, and the amount of paper consumed is large, if the catalogue edition is extensive. The first page of the preliminary pages, page i, should always be the title-page of the catalogue. The arrangement and typography of this page is largely a matter of taste. It is probably the least-used page in the catalogue, but, of course, is necessary.

As mentioned in the previous chapter, if the catalogue is subdivided into departments or divisions, each division should also have a title-page, and this subject will be given consideration further along in this chapter.

As it is advisable to copyright the catalogue, as elsewhere stated, page ii may be used for a copyright notice, which may read simply, for example, "Copyright, 1900, by West & Long Co.," or, more elaborately, "All original descriptive matter, illustrations, explanatory notes, etc., herein copyright by West & Long Co., 1900."

Also on page ii should be printed a blank in which the name of the recipient of the catalogue may be inserted, together with the copy number of the catalogue. The catalogues should be run through the numbering machine at the printer's and all catalogues of the issue numbered consecutively from 1 up to the limit of the issue. Following is a form which may be adopted for the purpose of entering the name of the recipient of the catalogue:

COPY No. 7358.

Issued by WEST & LONG COMPANY,
New York City.

To

.....

.....

*GENERAL INDEX

OUTLINE

	Page		Page
TRIMMINGS, TOPS, ETC.	89	TIRES AND TIRE ACCESSORIES	437
BOLTS, SCREWS, ETC.	53	RUNNING GEAR PARTS	481
MISCELLANEOUS SHOP SUPPLIES	75	BODY ACCESSORIES	501
MACHINIST AND BLACKSMITH TOOLS	119	ENGINE AND TRANSMISSION ACCESSORIES	515
MACHINES AND MACHINE INCIDENTALS	257	LUBRICATING DEVICES	535
POWER AND TRANSMISSION MACHINERY AND INCIDENTALS	315	IGNITION SUPPLIES	547
IRON, STEEL AND METALS	379	LIGHTING SUPPLIES	583
GARAGE SUPPLIES	401	SUNDRY MOTOR CAR ACCESSORIES	609

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Paper	89	ANGLE Boxes	357	Springs	497
Wheel Dressers	284	Molding	41	AXES, Hand	187
Wheels	284	Iron and Steel	381	AXLE Keys	67
Speeds of	313	ANGULAR Bore	179	Steel	389
ABRASIVES	88, 89	ANNEALED WIRE	108, 110		
ABSORBERS, Shock	496	Tool Steel Cuttings	385		
ACETYLENE Gas Generators	597	Tubing	99, 598		
ACID, Hydrochloric	91	ANNUNCIATOR Wire	108		
Muratic	91	ANTACBIC Machine Oil	335		
ACORN Pump Connectors	466	ANTI-FRICTION Bearing Metals	92		
ADAPTER Shells, Lamp	602	Powders	459		
ADAPTERS, Electric-Oil Lamp	592	ANTI-SKID Devices	441		
ADHESIVE Blow Out Patches	454	Pneumatic Tires	439		
ADJUSTERS, Chain Grip	441	ANVIL Tools	127		
ADZE EYE Nail Hammers	134	ANVILS, Blacksmith	121		
AEROPLANE Cables	113	Combination	126		
Oil	403	APLCO Dynamos	327		
Rudder Cord	113	APPAREL, Washrack	431		
Strand	113	APRON Cloth	5		
AGENTS, Case Hardening	81	APRONS, Washers'	431		
AIR Bags, Sectional	474	ARBORS, Drill Chuck	278		
Cocks	345	ARMS, Steering	499		
Compressor Controls	342, 343	ARMSTRONG Tool Holders	293, 294		
Governors	342	ARTIFICIAL Leathers	6		
Lubrication	378	ASBESTOS	95		
Self-Starters	343	Board	95		
Unloaders	342	Retort Cement	81		
Unloading Devices	342	Wick Packing	97		
Compressors	337, 341	Wood	579		
Conductor Pipe	266	Yarn Packing	97		
Gauges	461	ASH Trays	43		
Hose	346, 465	ASSORTED Cap Screws	70		
Jacks	434	Castellated Nuts	61		
Pressure Regulators	519	Cotter Pins	66		
Receiver Accessories	345	Lock Washers	63		
Pressure Regulators	342	Taper Pins	66		
Receivers	344	ATLAS Air Jacks	434		
AKRON - WILLIAMS Vulcanizing		ATTACHMENTS, Micrometer	220		
Equipment	471-477	Pipe Wrench	136		
ALCOHOL Heated Vulcanizers	469	Screw Driver	229		
Shellac	116	AUGER Bits	178		
ALLIGATOR Wrenches	138	AUTOBESTINE Brake Lining	486		
ALLOY Sheet, H. P.	94	AUTO Casters	435		
Spring Steel	384	Drip Pans	420		
ALUMALOYD	397	Fabrics	3		
ALUMINUM Engine Paints	115	Front Protectors	498		
Flux	90	Gasoline Funnels	416		
Ingots	394	Monkey Wrenches	136		
Matting	12	Tools	141		
Molding	40, 41	AUTOGRAPHIC Registers	413		
Rod	394	AUTOMATIC Center Punches	232		
Sheet	397	Chain Drills	182		
Solder	90	Drills	183		
A. L. A. M. Cap Screws	71	Funnels	416		
Dies	170	Grease Cups	331, 539		
Nuts	61	Screw Drivers	229		
Screw Plates	165, 166	Start'g and Stop'g Devices	342		
Taps	172	Unloading Devices	342		

*INDEX, PRACTICAL POINTERS, page XIX, following this General Index.

Additions and Revisions last pages in Catalog.

The names of recipients of catalogues should be recorded. The subject of catalogue issuing and recording is treated in Chapter XV.

Page iii may contain a general statement to the trade, such general statement being variously headed "Introduction and Explanation," "To the Trade," "Prefatory Notice," etc., or such matter may be entirely omitted. Such introductory and explanatory matter should contain explanation of the use of the catalogue, if any peculiar features are used, statement of policy as to the use of lists, whether the same follow manufacturers' lists as far as possible, etc., suggestions as to ordering, price policy, treatment of mail orders, statements, terms, remittances, claims, etc.

As the index should start on a right-hand or odd page, the even page, page iv, is still left, if the beginning of the index is to be on page v. Page iv will come in for use for some such purpose as a brief history of the company, a statement of the general policy of the concern, perhaps a list of the names and dates of issue of previous catalogues, a notice of the existence of, perhaps, an information department, or in case the catalogue is a loose-leaf catalogue and to be revised from time to time, a statement of the general methods followed in this respect, etc.

At the top of the first page of the index should be a brief list of the divisions or departments contained in the catalogue, if the catalogue is subdivided, with the first page of each division set opposite the name of the same.

The index proper should be strictly alphabetical and not lined up in "alphabetical-sub" form. The catalogue should be cross-indexed under all regular names. Proper names of manufacturers or patent trade-words should not ordinarily be indexed, but exceptions to this rule should be made in cases where such proper names or trade-words are very commonly used.

Where words are repeated, the next succeeding line should be set in for the first omitted word and dittoed for succeeding omitted words.

Key words should be printed in bold-face type and should be arranged in alphabetical order relative to one another, subordinate or non-key words being disregarded in the alphabetical arrangement of key words. The non-key words, that is to say, the group of words subordinate to each key word, should, each group in itself, be arranged in alphabetical order.

Page number or numbers on which each item appears should, of course, be set opposite each item of the index.

Plate 16 illustrates the first page of an index.

It is a good plan to have the index "side-indexed," as the operation is termed by printers. This consists of printing on the margin of each page the index letter or letters appearing on every such page, such marginal printing being so spaced vertically along the margin as to enable portions of the margins of the pages to be cut away. By this means the letters printed on the margins of other pages will be disclosed, and the thumb may be placed on the margin of the page containing the desired letter and other pages turned out of the way. Variation of this method, where indexes are voluminous, is a system of tabbing, lettered tabs being

* GENERAL INDEX

Outline		Page			
	Page		Page		
TRIMMINGS, TOPS, ETC.....	1	TINES AND TIRE ACCESSORIES.....	437		
BOLTS, SCREWS, ETC.....	53	RUNNING GEAR PARTS.....	481		
MISCELLANEOUS SHOP SUPPLIES.....	75	BODY ACCESSORIES.....	501		
MACHINIST AND BLACKSMITH TOOLS.....	119	ENGINE AND TRANSMISSION ACCESSORIES.....	515		
MACHINES AND MACHINE INCIDENTALS.....	257	LUBRICATING DEVICES.....	535		
POWER AND TRANSMISSION MACHINERY AND INCIDENTALS.....	315	IGNITION SUPPLIES.....	547		
IRON, STEEL AND METALS.....	379	LIGHTING SUPPLIES.....	583		
GARAGE SUPPLIES.....	401	SUNDRY MOTOR CAR ACCESSORIES.....	609		
A	Page	Page	Page		
ABRASIVE Cloth.....	89	ANVIL Tools.....	127	Pump Hose.....	466
Paper.....	89	ANVILS, Blacksmith.....	121	BARBACK Fabrics.....	478
Wheel Dressers.....	284	Combination.....	126	BARREL Faucets.....	414
Wheels.....	284	APLCO Dynamos.....	327	BARREL-TOP Pumps.....	414
" , Speeds of.....	313	APPAREL, Washrack.....	431	BARRELS, Shackle.....	490
ABRASIVES.....	88, 89	APRON Cloth.....	5	BARS, Compound Lever.....	235
ABSORBERS, Shock.....	496	APRONS, Washers.....	431	Crow.....	235
ACETYLENE Gas Generators.....	597	ARBORS, Drill Chuck.....	278	Pinch.....	235
ACID, Hydrochloric.....	91	ARMS, Steering.....	499	BATTERY Boxes.....	511
Muriatic.....	91	ARMSTRONG Tool Holders.....	293, 294	Connectors.....	563
ACORN Pump Connectors.....	466	ARTIFICIAL Leathers.....	6	Switches.....	330
ADAPTER Shells, Lamp.....	602	ASBESTOS.....	95	BATTERIES, Charging Directions.....	329
ADAPTERS, Electric-Oil Lamp.....	592	Board.....	95	Dry Cell.....	328, 562
ADHESIVE Blow Out Patches.....	454	Retort Cement.....	81	Hand Electric Lamp.....	601
ADJUSTERS, Chain Grip.....	441	Wick Packing.....	97	Storage.....	561
ADZE EYE Nail Hammers.....	134	Wood.....	579	Wet.....	329
AEROPLANE Cables.....	113	Yarn Packing.....	97	READ Cover Fabrics.....	478
Oil.....	403	ASH Trays.....	43	Molds.....	471
Rudder Cord.....	113	ASSORTED Cap Screws.....	70	BEADLESS Type Pneumatic Tires.....	439
Strand.....	113	Castellated Nuts.....	61	BEARING Metals.....	92, 359
AGENTS, Case Hardening.....	81	Cotter Pins.....	66	Sorapars.....	234
AIR Bags, Sectional.....	474	Lock Washers.....	63	Spotters.....	117
Cocks.....	345	Taper Pins.....	66	BEDFORD Cords.....	8
Compressor Controls.....	342, 343	ATLAS Air Jacks.....	434	BEESSING Leather.....	7
" Governors.....	342	ATTACHMENTS, Micrometer.....	220	BELL CENTERING Tools.....	294
" Lubrication.....	378	Pipe Wrench.....	136	BELT Clamps, Iron Screw.....	367
" Self Starters.....	343	Screw Driver.....	229	Couplings.....	525, 538
" Unloaders.....	342	AUGER Bits.....	178	Dressing.....	366
" Unloading Devices.....	342	AUTOBESTINE Brake Lining.....	486	Fasteners.....	365, 366, 525
Compressors.....	337, 341	AUTO Casters.....	435	Hooks.....	525
Conductor Pipe.....	266	Drip Pans.....	420	Lacing.....	365, 525
Gauges.....	461	Fabrics.....	3	Punches.....	367
Hose.....	346, 465	Front Protectors.....	498	Shifters.....	357
Jacks.....	434	Gasoline Funnels.....	416	Tools.....	367
Pressure Regulators.....	519	Monkey Wrenches.....	136	BELTING Accessories.....	366
Receiver Accessories.....	345	Tools.....	141	Information.....	364
" Pressure Regulators.....	342	AUTOGRAPHIC Registers.....	413	Tables.....	364
Receivers.....	344	AUTOMATIC Center Punches.....	232	BELTING, Balata.....	362
AKRON-WILLIAMS Vulcanizing		Chain Drills.....	182	Canvas.....	363
Equipment.....	471-477	Drills.....	183	Care of.....	366
ALCOHOL Heated Vulcanizers.....	469	Funnels.....	416	Fan.....	525
Shellac.....	116	Grease Cups.....	331, 539	Flat.....	525
ALLIGATOR Wrenches.....	138	Screw Drivers.....	229	Leather.....	360, 525
ALLOY Sheet, H.P.....	94	Start'g and Stop'g Devices.....	342	Rubber.....	361
Spring Steel.....	384	Unloading Devices.....	342	Wire.....	538
ALUMALOYD.....	397	AUXILIARY Seats.....	503-505	BENCH Brackets.....	476
ALUMINUM Engine Paints.....	115	Springs.....	497	Brushes.....	236
Flux.....	90	AXES, Hand.....	187	Cores.....	476
Ingots.....	394	AXLE Keys.....	67	Drill Machines.....	267
Matting.....	12	Steel.....	389	Hooks.....	226
Molding.....	40, 41			Levels.....	224
Rod.....	394			Stops.....	226
Sheet.....	397			Tables.....	126
Solder.....	90	BABBITT Metals.....	92, 359	BENT RIMS, Motor Vehicle.....	484
A.L.A.M. Cap Screws.....	71	BACK Saws.....	188	BESSEMER Rod, Coppered.....	389
Dies.....	170	BACK BOW Straps.....	38	BEVEL Clinch Rivets.....	68
Nuts.....	61	BACK-FLAP Hinges.....	28	Edge Steel.....	390
Screw Plates.....	165, 166	BACK-GEARED Drill Machines.....	271	Protractors.....	197
Taps.....	172	BAGGAGE Carriers.....	510	BEVELED Edge Wagon Box Steel.....	390
AMMETERS.....	580	BAGS, Air, Sectional.....	474	" Steel Scales.....	193
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Molding.....	41	Gas.....	597	BEVELS, Sliding T.....	195
Iron and Steel.....	381	Inner Tube.....	444	BILLETS, Nickel Steel.....	389
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ANNEALD Wire.....	108, 110	BALATA Belting.....	362	BIT Brace Countersinks.....	173
Tool Steel Cuttings.....	385	BALL and Socket Joints.....	499	" Taper Reamers.....	173
Tubing.....	99, 598	Joints, Adjustable.....	529	" Taps, Dies and Holders.....	173
ANNUNCIATOR Wire.....	108	Pein Hammers.....	132	Braces.....	180
ANTARCTIC Machine Oil.....	335	Points.....	213	Holders, Extension.....	179
ANTI-FRICTION Bearing Metals.....	92	BALLS, Steel.....	531	Sets, Drill.....	277
Powders.....	459	BAND Steel.....	381	Stock Drills.....	177
ANTI-SKID Devices.....	441	BANDS, Hartwig Retaining.....	483	BITS, Auger.....	178
Pneumatic Tires.....	439	Pneumatic Hose.....	346	Brace.....	177-179

* INDEX, PRACTICAL POINTERS, pageXIX following this General Index
Additions and Revisions last pages in Catalog.

PLATE 17—MANUSCRIPT INDEX PAGE.

Two-thirds of full size sheet.

(88)

pasted to the pages, such tags projecting out beyond the pages. All indexes of ten or more pages should be side-indexed.

The best and simplest method of compiling an index is as follows: An ample supply of plain slips of paper, of size 5 by 3 inches, having been provided, all names and items on each page of the proof scrap-book copy of the catalogue will be written on separate slips, the page number of each also being noted on each slip. As these slips are written, the same should be turned face downward in piles and all of the slips written against each page should be strapped together with a rubber band. These groups of index slips should be placed in consecutive order of pages.

When the "slip-indexing" of a division of a catalogue has been completed, these index slips should be checked back by some one thoroughly familiar with the articles and with the line. While checking back the index slips, any superfluous slips may be thrown out or any further slips added. It may be necessary to add new index slips for the reason that some articles, while appearing in the catalogue under one name or term, may be generally known to the trade by another term, which fact should be known to the person checking back the slips.

After the slip-indexing of the entire catalogue has taken place, all of these slips should be filed alphabetically in a 5 by 3 inch card-index box provided with an alphabetical sub of the proper magnitude. A convenient alphabetical sub to use in indexing a catalogue, the index of which may consist of from ten to twenty three-column pages, is a 200 sub. If the index is to be small, either a straight alphabetical sub or a 25 sub may be used, and if the index is to be large, an alphabetical sub of greater magnitude, that is to say, a more minute subdivision, should be used.

The next process, after having compiled the index slips as directed, is arranging the slips in front of each alphabetical-sub guide-card, in intrinsic alphabetical order. After this process has been performed and has been carefully checked over, the key words should next be established, and this can be very simply done by drawing a blue pencil mark under the word which is to act as the key word. The key words having been established, these should be checked relative to one another to see that the key words are in alphabetical order, following which the alphabetical order of the subordinate groups of words appearing under each key word should be established.

The next process will consist of transcribing the index manuscript sheets. The transcription should take place on ordinary white paper, which should be cut up and pasted onto the standard manila manuscript paper (Plate 9) in use in the department.

The number of columns used in the index is largely a matter of expediency.

After having been transcribed, the manuscript of the index should be carefully checked back against the index slips and any necessary corrections or additions made. Some of the sheets of index manuscript may become more or less confused, due to considerable correcting, and if such is the case should be carefully rewritten

PRACTICAL POINTERS

Subdivision of "Machinist and Blacksmith Tools."

VICES. The fact that the Vise is a tool, and a very important tool, is frequently overlooked. If a vise goes "lame," see that it is brought back to efficiency at once; if irreparable, a Vise selected from page 124 or 125 will pay the difference, in increased efficiency, in a short time.

BENCH TABLES and ANVILS, page 126, should be a part of the equipment of an up-to-date shop. Saves hunting for or improvising a smooth place to perform a particular piece of work such as may be encountered in overhauling a magneto, laying off cast brackets and the like.

ANVIL TOOLS. In fitting up or in completing the equipment of the machine shop or motor vehicle repair shop, do not overlook the blacksmith shop part of the outfit. Items of equipment will be found fully illustrated, listed and described on pages 121, 122, 123, 127, 128, 129, 130, 131 and 132.

SOFT HAMMERS, page 133, are a very important part of the equipment of a Class A shop, their judicious use effecting preservation of surfaces, edges and "centers" where it is necessary to apply hammer blows to such places.

HAMMER HANDLES, page 135. Why take a mechanic's time to bind a broken handle with wire when **Hammer Handles** are cheaper.

WRENCHES. The items on pages 136 to 142 have been carefully selected and have been illustrated, listed and described with the special object of enabling an intelligent selection to be made. Spend an hour with these pages and you are guaranteed increased shop efficiency through any purchases you conclude to make.

PLIERS have a way of mysteriously disappearing. Keep from one to three pair of **Auto Type Combination Pliers**, page 143, in reserve in a secret place, and when purchasing do not overlook the **Side Cutting** type, also on page 143.

TWEEZERS, page 145, serve, for example, to recover a small spring or screw which has dropped into a place, in a carburetor or magneto, inaccessible with pliers or fingers.

HACK SAWS, page 149. The best method of starting a **Hack Saw Blade** true to the place where it is desired to make the cut is to make a small starting notch with a small **Slim Taper, Half Round or Knife File**, pages 150, 153 and 157. Also note **Screw Slotting Blades** on bottom of page 149.

FILES, in spite of their relative cheapness and apparently subordinate position, are never-the-less very important tools. Pages 150 to 160 should be carefully examined, and attention is also called to **File Handles and Cards**, page 161.

SCREW PLATES. It does not pay to cut any but very special screw threads on the lathe. Time and money can be saved in making a selection, to meet requirements and possible contingencies, from pages 162 to 170.

TAP WRENCHES, page 168. Do not use a common wrench on Taps, as the loss of time resulting from a broken Tap and the necessity of digging it out will soon pay for a **Tap Wrench** specially suitable for the purpose.

TAPS. The Class A mechanic will be interested in the assortment of Taps on pages 171 and 172, a careful examination of which is suggested.

BRACE DRILLS. The convenient form and utility of **Bit Stock Drills and Wood Boring Brace Drills in Sets**, page 177, make them a desirable part of the tool equipment.

HAND POWER DRILLS and AUTOMATIC DRILLS. The special ratchet features of the **Yankee Breast Drill**, page 181, and the **Yankee Hand Drill**, page 182, effecting changes of speeds and limitation of handle motion, make these Drills particularly serviceable for meeting unusual conditions. This is "something different," so do not fail to read the "Details of Construction" on page 181. The **Yankee Automatic Drill or Brace**, page 183, is another interesting tool.

KEY SEAT RULES. A keyseat on a shaft is usually laid off by placing the shaft on a pair of **V Blocks**, page 225, and with a **Surface Gauge**, page 207, marking the place for the keyseat. An easy alternative is as follows: Place a **Key Seat Rule**, page 194, on the shaft at the place for the keyseat

and mark the shaft with a **Scriber**, page 232. The time consumed in setting up to perform the same operation with a **Surface Gauge** is thus saved.

DRILL and TAP GAUGES. A full explanation of the use of this Gauge will be found on the lower half of page 200.

THICKNESS GAUGES. When determining the end play in fitting crankshafts, use a **Starrett Thickness Gauge**, page 206, if there is one in the tool kit.

TWIST DRILL GRINDING GAUGES, page 209, are necessary, in grinding twist drills, to insure the equal length of both cutting edges, this condition being a requisite, if it is desired to drill a hole to the size of the drill.

TRAMMEL POINTS, page 213, may be used to line up the Axles of a motor vehicle, using directly opposite points of the frame as reference points.

CALIPERS, pages 215 to 223. Don't try to measure with rules or scales without the further assistance of **Calipers**, where a fit is required. Under such circumstances the proper Calipers for the work are as necessary as the metal itself.

DRILL BLOCKS, page 225, are used, instead of wood blocks, when drilling cotter pin holes in magneto shafts or when any other round or irregular piece requires a drilling support.

OIL STONES, page 227. After grinding a tool or cutter of any character on an abrasive wheel, always use an **Oil Stone** to fully obtain the necessary smooth and sharp edge or point.

SPIRAL RATCHET SCREW DRIVERS, page 229. Another **Yankee** tool of great merit, which can be used to great advantage as a time saver in placing a number of screws, though of little advantage where operating on a small number of screws.

METAL CHISELS. Take note that there are other Metal Chisels than the ordinary flat and cape chisels. Some of the uses of such other Chisels are explained on page 231.

PUNCHES. The uses of Punches being relatively large in motor vehicle repair work, attention is directed to page 232, and particularly to **Chisel and Punch Sets** on page 233.

PINCH and CROW BARS, page 235, will prove much handier than a piece of wood or bar iron or steel, when removing motors or transmissions or doing other prying.

METAL CUTTING HAND SHEARS, page 237. **Universal Blade Snips** will cut any kind of a curve without trouble and **Compound Lever Snips** will cut heavy material with ease.

ELECTRIC SOLDERING COPPERS, page 238, have several advantages, most of which are self-evident.

SOLDERING BRUSHES, page 239, having wire bristles, may be used in removing the burnt flux and the dirt from a soldering job, without burning up the brush.

SINGLE JET TORCHES make a fully satisfactory little road kit Torch. Different from all other Torches; read the description on page 241.

PIPE TOOLS. Ordinary Pipe Wrenches and Vises are indispensable but cannot be used on polished and plated work, and for this work **Strap Pipe Wrenches**, page 245, and **Strap Pipe Vises**, page 246, should be used.

STRAIGHTENING PRESSES. Cam shafts, propeller shafts and even axles require straightening from time to time. When a shop has a **Straightening Press** on the work bench it has a valuable tool. Hammering metal, to straighten it, may crystalize it.

MACHINISTS' TOOL CASES and CHESTS, pages 253 and 254, may be considered a luxury by some mechanics, but possessors of **Tool Cases and Chests** will readily appreciate their many advantages, some of which are enumerated on the bottom of page 254.

LETTER and FIGURE STAMPS, page 255, may be advantageously used in marking motor vehicle parts, when taking down the vehicle for repairs. By systematically marking and listing the parts much time in re-assembling may be saved. Also note **Tool Marking Outfits** on the same page.

and the rewritten sheet checked back against the first sheet. Careful preparation and checking of the preliminary index slips will, however, make much correction of index manuscript unnecessary.

Plate 17 illustrates the typewritten page of manuscript index from which was printed Plate 16, previously referred to.

Reference has several times been made to division or department title-pages, the advisability of subdividing the catalogue into departments or divisions having also been repeatedly suggested.

As any title-page, whether that of a book, of a catalogue or of a division in a catalogue, should commence on the right-hand, that is, odd-numbered, page, and as the catalogue matter proper of each division should also commence on an odd page, an even-numbered page immediately following the division title-page must either be left blank or may be used in some such manner as that exemplified by Plate 18.

As the efficiency of a catalogue will be increased by making it also, to as great an extent as possible, a book of information, such pages may be used for purposes of instruction, detailed sales suggestions, purchasing suggestions, etc.

Of course, if the page immediately following the division title-page is not used for any of these suggested purposes, there is no *positive* objection to commencing the catalogue matter proper on such page. For that matter, it is not absolutely necessary to have a division title-page. The advantages of inclusion or omission of division title-pages should be determined according to the merits of each individual case.

As has been previously explained, if the division system is used, the last page of a division may fall on an odd-numbered or right-hand page. This leaves an even-numbered or left-hand page blank, providing the first page of the next succeeding division is always started on an odd-numbered or right-hand page. Opportunity is always afforded for printing, on this blank page, some general article, either written originally by a member of the department or of the concern, or an authorized extract from a trade paper or trade book, etc. Conditions prevalent in any line of business are always capable of improvement, and instructive articles, with improvement of conditions as the aim, may be placed on such blank pages.

If a system of stock grouping is adopted, as suggested in Chapter V, it will frequently happen that it is not possible to completely fill some pages. There is no objection whatever to short pages, and it ought not be felt that it is necessary to fill up every page from top to bottom. Furthermore, it very frequently happens that it is decided to catalogue additional articles, which, it will very conveniently be found, will just nicely fit in at the bottom of these short pages. Just such occurrences have been quite frequent in the experience of the author.

It also sometimes happens that, in looking over the manuscript, very beneficial additional descriptive matter may be added on these short pages, and, in any case, a little applied thought will result in the introduction of general information of a very instructive and interesting character. Furthermore, in the case of pages the upper half of which only is occupied, there is no objection to printing a general

article of some sort. For example, the author has in view a page, one-quarter of which was occupied by certain soldering tools. The balance of the page was used for the purpose of explaining in detail the process of soldering, and something of its history, with a brief exposition of the process of brazing. The author has learned that since the publication of the catalogue containing this information, it has been used by a number of persons to great practical advantage, and has been read with interest and attention by a number of others.

CHAPTER XIII.

BINDING THE CATALOGUE.

DURING the past few years quite a number of catalogues of general hardware houses, plumbers' supply houses, machinery merchants and the like have been published in loose-leaf form, in heavy screw post binders. Also, many smaller catalogues, booklets, etc., of manufacturers have been published in loose-leaf form, the pages being simply placed in a light binder and held therein either by small screws or by paper fasteners. While there is much to be said in favor of the publication of catalogues in loose-leaf form, the fact is that, by so doing, a rather high standard is set, which it is sometimes hard to follow.

The object of using a loose-leaf binder is to enable subsequent revision of the catalogue. If, however, subsequent revision is intended, these good intentions should be carried out, a manifestly difficult thing to do in some cases.

For example, the author recalls a very up-to-date loose-leaf catalogue of a progressive general hardware company. The catalogue department of this company is a permanent department, with a very up-to-date equipment. The catalogue was issued with the intention of issuing revision sheets at frequent intervals, it being assumed that the revision sheets or pages would not come so frequently as to make either their compiling and printing difficult, or the insertion of the sheets by the holders of catalogues a burden. The facts of the matter were that changes in merchandise and in lists, and additions of new merchandise were so rapid that within a comparatively few months a large number of revision pages became necessary. By hard work and good management the catalogue department succeeded in "stemming the tide," the work was finally caught up, and the revision pages were printed. But the large number of pages presented such a problem of insertion that the holders of catalogues were requested to return them to the catalogue department of the issuer by freight, for insertion of the additional sheets by that department. It is needless to say that a number of the catalogues were never returned, in spite of "second letters."

Another of the problems arising is that of page-numbering the revision sheets. Of course, if it is absolutely known just what subsequent additions of pages are to be made, spaces may be left for such pages. If, however, this method is adopted, a small sign of some kind should be placed before the last page preceding the gap created by omitted pages, this sign being so devised as to show the number of omitted pages. For example, a small star can be used to indicate the omission of two pages (it will, of course, be necessary always to omit two pages, one page-sheet), two stars to show the omission of four pages, and so on. Inserted pages may also bear the same number as the next preceding page, the first inserted page bearing the letter "a," the second inserted page the letter "b," and so on. A complication will here arise, of course, in the case of further insertion between, for example, two inserted pages, in which instance it will probably be necessary to

double the letters in some manner. All of this might be easy for the catalogue department, but difficult for the user of the catalogue.

On the other hand, a number of advantages arise, and, unless the cost of publication of the loose-leaf catalogue is greater than that of a regularly bound catalogue, certainly it can not be argued that the loose-leaf catalogue is any more inefficient than the regularly bound one, the loose-leaf catalogue always presenting the *possibility* of revision, if it is desired to revise.

An excellent means of successful revision of loose-leaf catalogues is the following: Revisions should be issued, ordinarily, once a year, though, of course, special sheets in cases of extreme urgency may be issued from time to time if positively necessary. Revision sheets should be printed in duplicate for every catalogue in existence. One set of punched revision sheets should be left loose and placed in an envelope of sufficient size to hold them comfortably, together with a set of printed directions for insertion, such directions being concise but clear. The other set of sheets should be bound in pamphlet form and not in loose-leaf form, a paper cover for the purpose being sufficient. On the cover of this pamphlet should be clearly indicated the fact that it contains the revision sheets for the year, the catalogue of which it is amendatory being, of course, definitely named. The fact that another set of sheets *for insertion in the catalogue* has been issued should also be plainly printed on this pamphlet, and a request to see that the same is inserted should be made. It will thus be seen that, even in case the loose revision sheets are not inserted, the pamphlet constitutes a supplement to the catalogue, which will doubtless be used in cases where the desired items are not found in the main catalogue. Furthermore, the printing of a supplement will frequently be of great advantage to the customer, when he is looking for new items, etc., and will often result in greatly increased sales of new items of merchandise.

Wherever possible, it will be better to have a representative insert the revision sheets, thus insuring their insertion, and have the representative hand the pamphlet of supplementary sheets to the holder of the original catalogue.

Where it is desired to issue catalogues at fairly frequent intervals, as each catalogue is complete in itself, there is no advantage in using the loose-leaf system of binding, and a standard sewed form of book will, in such instances, operate to the best advantage.

If the loose-leaf form is used, and the binders are expected to last for a considerable length of time, care should be used to obtain a substantial and efficient form of binder. If the catalogue is a very large and heavy one, particular attention should be given to this point.

A *standard size of catalogue* should, if possible, be adopted. The author has noticed that about the average or standard size of catalogue pages for large catalogues is, where loose-leaf binders are used, 10 by 11½ inches, and where sewed binders are used, 9 by 11½ inches. Advantage should be taken of the sizes of the original sheets, and the pages cut to the best advantage.

Where catalogues are bound in the usual manner the original sheets are folded and sewed in binding, but when the loose-leaf form is used the original sheets are cut up into page-sheets. These sheets, when gathered, punched and inserted in the loose-leaf binders, are held therein by means of binder screws or such other holding means as may be used in the binder adopted. There should be no material difference in the cost between the loose-leaf form of binding and the standard method of binding, unless the catalogue is a very large one. If the catalogue is very large, the mechanical difficulties presented in holding the pages in the binder are such as to relatively increase the cost of the binder itself, and, perhaps to some extent, the cost of gathering the sheets into the binders, on account of the bulkiness and unwieldiness of each full set of page-sheets. The unfamiliarity of many binderies with loose-leaf catalogues will usually lead to the conclusion that the total cost of a loose-leaf catalogue, even if of moderate size, will be greater than that of an ordinary catalogue. Doubtless this will be true for the first few hundred catalogues gathered, but the employees of a bindery will soon develop sufficient skill to perform the work of gathering sheets of a loose-leaf catalogue with a rapidity equal to that of the same number of pages of an ordinary bound catalogue. It is a fact, however, that much of the work of gathering, that is to say, of folding, is performed by machinery in the process of binding a regularly bound book.

CHAPTER XIV.

NEW MATTER AND PRESERVATION OF FORMS.

ESPECIALLY is it the case that perpetuation of the work must be considered, if the catalogue is published in loose-leaf form. The same consideration should, however, govern, even if the catalogue is not a loose-leaf one, as it will follow that, at least at some future time, a new edition will have to be published. It therefore becomes important to establish some system of recording matter which it is intended, at some subsequent time, to make use of in catalogue form.

A simple system for this purpose consists of placing between each sheet of the last issue of the catalogue a blank page-sheet. If the catalogue is a loose-leaf catalogue, a supply of sheets of the same size as the page-sheets should be obtained, the catalogue divided into two parts, the first part being placed in one binder and the second part in another binder, and one each of the blank sheets inserted between every catalogue page-sheet. If the catalogue is in standard bound form, a special catalogue, in two volumes, with blank-sheet inserts between every page-sheet, should be ordered. As new merchandise is received, notations should be made at points in the catalogue where such items will best fit in, on the blank pages at such points. Corrections of errors, changes of list, etc., and suggestions for change of form or improvement may be noted in the same manner.

It also sometimes happens that, while items will not at present be added to the stock of merchandise, it is intended to add such items at such time as the new issue of the catalogue is published or the revised pages inserted, as the case may be. Notation to this effect may be made in the same way. This two-volume copy of the catalogue should be known as the "Record of Changes and Additions Copy," or, for short, simply the "Record Copy" of the catalogue. The record copy should, of course, be kept in a vault or safe, as the matter contained therein soon becomes intrinsically very valuable.

The methods and problems of issuing revision sheets of loose-leaf or revisable catalogues have been treated in the previous chapter and, as is evident, when issuing such revision sheets, the matter entered in the record copy will be drawn upon for the purpose.

Based upon the policy of perpetuating the work, the preservation of the type-forms becomes important. As suggested in previous chapters, all cuts should be so obtained as to enable their retention. It is a common practice to simply borrow cuts for the purpose of printing a catalogue, but if a policy of perpetuating the work is adopted, and if it is necessary to return cuts, electrotypes should be pulled from the same for the purpose of retention, and the original cuts returned. Where it is necessary to use individual type, the same should be purchased from the printer and paid for, but it is advisable to use only a small quantity of individual type, if possible, as this form of type is expensive. If, however, the major

portions of the pages are set by linotype, all that is involved is the weight of the linotype metal, and this metal may be considered as an asset, as it has a market value at all times.

Of course, if the edition of the catalogue is to be extremely large, say fifty thousand copies and upward, it will doubtless be necessary to electotype all pages in any case, under which circumstances borrowed cuts may be returned and linotype metal need not be preserved and consequently should not be charged for by the printer.

If, however, the forms are preserved, it is advisable to provide some fireproof storage place for them and, as the space occupied is relatively small, the type-forms should be stored in a vault. Fires are not unusual occurrences in printing establishments, as evidenced by the extremely high rates for insurance covering these establishments, so that it becomes of utmost importance to protect preserved forms against fire.

The page-forms are usually placed, two pages at a time, on galleys, and it will be necessary to purchase the galleys, as they may be said to be tied up indefinitely and the printer can hardly be expected to furnish permanent equipment for preserving the forms. The galleys should be placed in a rack specially constructed for the purpose. The rack may be constructed of wood, with the shelves a sufficient distance apart and of sufficient width and depth to receive the galleys. As vault space is somewhat expensive, and as a further fire prevention, it is advisable to have the rack constructed partly of metal. A good form of rack consists in making wooden uprights, with grooves on both sides of each upright at equal distances apart. Into the grooves of every two such uprights may be slid a sheet of metal of sufficient thickness to span the distance between the uprights. Doubtless some such racks are in existence in printing establishments, and are available for examination.

In considering the matter of vault-storage space and storage racks, plenty of room should be allowed for expansion. A good catalogue should result in largely increased sales, and consequently in additions to the line, with still greater increase in size of the loose-leaf catalogue, or in size of the next edition of the catalogue, if a regularly bound catalogue, necessitating more room for the storage of forms.

The form-storage space should, if possible, be located at the printing establishment which prints the catalogue. The possibility of continuing to patronize the same printer must, however, be taken into consideration, and if there is any doubt about the matter, the form vault should be located on the premises of the issuer of the catalogue, as it is not a very serious matter to send the galleys containing the page-forms to the printer's. A box of sufficient size to receive a number of galleys may be made, the weight and ease of handling being, of course, taken into consideration. Galleys may be placed in these boxes, with sheets of cardboard the same size as the galleys intervening between, as a protection to the contents of the galleys. These boxes can then be trucked to a wagon and hauled to the printer's.

Even if type-forms are placed in a fireproof vault, it will be well to obtain insurance covering the contents of the vault, as a very low rate of insurance should be obtainable under the circumstances. This precaution is advisable because of the reason that in cases of general conflagration contents of vaults have sometimes been destroyed and, furthermore, it is always possible that a vault door may be left open.

A good place to locate a vault is under a sidewalk, as such space is, in itself, more or less isolated from the effects of a possible fire. The author noticed, in the case of a general conflagration in a city with which he is well acquainted, that merchandise stored under sidewalks, with no special protection whatsoever, often escaped the effects of the general conflagration; and that vaults placed under sidewalks were opened shortly after the conflagration without any evil effects, whereas vaults located in the interiors of buildings, which were opened within a week or ten days after the conflagration, were still so heated that their contents burst into flame upon the opening of the vault door.

The form vault should be lined — floor ceiling and sides — with wood or other temperature-insulating material, as otherwise the concrete or brick walls, ceiling and floor will precipitate moisture from the air and cause dampness, which must not be allowed in the vault. The type, the cuts and the metal galleys should be oiled every six months to prevent corrosion. Rats and mice must be excluded, as the acid in their urine will attack the metal in the cuts. Six-month entries should be made in a diary, or in its up-to-date substitute, the tickler, to inspect the form vault and insure attention to oiling forms, etc.

The preservation of type-forms also makes possible the issuing of subordinate or department catalogues in smaller form. It frequently happens that a concern carrying a general or diversified line, capable of subdividing into departments or divisions, will number among its customers certain classes interested in the goods represented by one or two departments only. While the existence of every general catalogue may lead to business, in the hands of whomever placed, on the contrary the bulkiness of such general catalogue may, in the cases of customers of some classes, prove a bar to its use.

It is unnecessary to further dilate on the various possibilities of use of existent type-forms for circulars, special revisions of departmental catalogues, etc., as any live catalogue or advertising man can make use of them up to the limit of the annual appropriation for publication of catalogue and advertising matter.

CHAPTER XV.

ISSUING AND RECORDING OF CATALOGUES.

CATALOGUES should be packed in wooden boxes, a convenient number in each box, and a label showing the catalogue numbers of the contents should be pasted on the end of every box. It is also a convenience, in determining the consecutive order of boxes, to have the boxes numbered consecutively.

Envelopes or cartons, with sender's name printed thereon, should be used in mailing or expressing catalogues.

In order to avoid duplication of catalogues, and possible abuse of these, the whereabouts of every catalogue issued should, if possible, be known. A satisfactory recording system should therefore be provided. The catalogues of the issue should be numbered consecutively in a space provided for the purpose, as described in Chapter XII, and as each catalogue is issued the name of the intended recipient should be written in the blank space in the catalogue provided for the purpose, and the name entered on the catalogue-record cards.

There should be two sets of catalogue-record cards, an alphabetical set and a numerical set. The alphabetical set will furnish information as to whether or not any certain individual, firm or company holds a catalogue, and the numerical set will furnish the information as to whom a catalogue of any known number was issued. If it is desired to avoid the expense of keeping such double record, the numerical set of cards may be omitted. On Plate 19 are illustrated forms of catalogue-record cards, which may be either used in this form or modified to meet special conditions. Sometimes catalogue and advertising cards are combined, and such combination record may be used to advantage where a regular advertising department is maintained in conjunction with, or working in coöperation with, the catalogue department. The handiest form of card, unless considerable matter of an advertising nature is to be entered thereon, is the standard 5 by 3 inch size, and such cards may be filed in 5 by 3 inch trays or, for protection from the dust, in standard 5 by 3 inch file drawers.

Alphabetical sub guide-cards are necessary in the alphabetical set of catalogue-record cards, and the magnitude of the alphabetical sub will depend upon the number of catalogues issued. An issue of from two to four thousand catalogues requires about a 320 sub index; smaller issues alphabetical subs of less magnitude, and larger issues alphabetical subs of greater magnitude. No guide-cards are necessary in the numerical set of catalogue-reference cards, unless it is desired to subdivide the cards by hundreds or by thousands for the purpose of quick reference.

In case the catalogue is a loose-leaf catalogue, provision should be made on the record cards for recording the issuance of revision sheets and catalogue supplements. Spaces for the recording of the issuance of catalogue revisions may be conveniently provided on the backs of the catalogue-record cards, space being there available for the recording of revision sheets over an extended period.

F 83 NUMERICAL 8-11
4M

SEND REVISIONS

MOTOR VEHICLE SUPPLIES CATALOGUE No. _____

ISSUED TO _____

DATE _____

NO REVISIONS

F 83 ALPHABET.CAL 8-11
4M

ISSUED TO _____

MOTOR VEHICLE SUPPLIES CATALOGUE No. _____

DATE _____

ADDITIONS AND REVISIONS

In connection with the recording of catalogue-issuing, it may be well to mention that many catalogues will be issued to non-customers with the expectation that business will be received from such non-customers, thus converting them into customers. In the issuance of catalogues, the credit department should be coöperated with, and, in case no business can be expected from a non-customer, a catalogue should not be wasted on him, unless it is expected that cash orders will be received from this source.

It may here be remarked that unless the sales department is a live one, and is able to take advantage of a catalogue, either the expense of issuing a catalogue should be avoided and no catalogue issued, or a live sales department should be created. While it is true that a first-class catalogue will help any sales department, it is nevertheless true that full efficiency, and consequently full returns, can not be expected from a catalogue, unless full advantage is taken of its existence. Catalogue-making is expensive, and it requires the coöperation of all departments to obtain adequate returns on the investment in a catalogue.

PNEUMATIC HOSE (Cont'd)

"VELVET" * CORRUGATED		Per Ft.	\$460
¾" Double Fabric.....	\$ 0.39	Not stocked at present.	
¾" Triple Fabric.....	.47	bi uh ui © ho	
¾" Triple Fabric.....	.56	bo up¼ us © hr¼	
¾" Triple Fabric.....	.64	sh ur uk½ © um	
¾" Triple Fabric.....	.71	so½ bu½ bh © us½	
1" Triple Fabric.....	.87	po½ br½ bk½ © bi	

"VELVET" * WIRE WOUND		Per Ft.	\$460
¾" Double Fabric.....	.39	Not stocked at present.	
¾" Triple Fabric.....	.47	bk½ uo½ up © ui	
¾" Triple Fabric.....	.56	sm bi½ ur © ub¼	
¾" Triple Fabric.....	.64	se bm½ bh½ © uk	
¾" Triple Fabric.....	.71	po br bk © ur½	
1" Triple Fabric.....	.87	om so sb½ © bp	

PNEUMATIC HOSE COUPLINGS & BANDS

"STANDARD" HOSE COUPLINGS		Per Doz.	\$460
¾" to ¾" inc.....	\$15.00	Epi Ohi Pop © Spi	
1"	18.00	Himi XKbi IOkp © XPsi	

"QUICK ACTING" HOSE COUPLINGS		Each	\$460
½" Iron Pipe.....	\$ 1.50	Hup Him Irp © Xkp	
¾" Iron Pipe.....	1.50	Hmi Iep Xei © Iou½	
1" Iron Pipe.....	1.50	Hmi Iep Xei © Iou½	

¾" Int. Diam. Hose...	2.50	Ump Hki Hoi © Hup	
¾" Int. Diam. Hose...	1.50	Hmi Iep Xei © Iou½	
1" Int. Diam. Hose...	1.50	Hmi Iep Xei © Iou½	

STANDARD HOSE BANDS		Per Doz.	\$460
¾" to ¾" inc.....	1.50	kp ou½ pk½ © sp	
¾" & ¾".....	2.00	Hmi Ieu½ Ikp © Ioi	
1"	2.50	Hpi Hip Irp © Xkp	

PULLEYS

		Discount	\$463
Wood, Split.....	si% p1% pu½% © ou%		
Cast Iron, Solid *	im% hp% ui% © bu½%		
Steel, Split.....	ui% bp% si% © pu½%		

PULLEY BUSHINGS

		Discount	\$465
Wood †	ui% bp% si% © pm%		
Iron ‡	up% si% sp% © oi%		

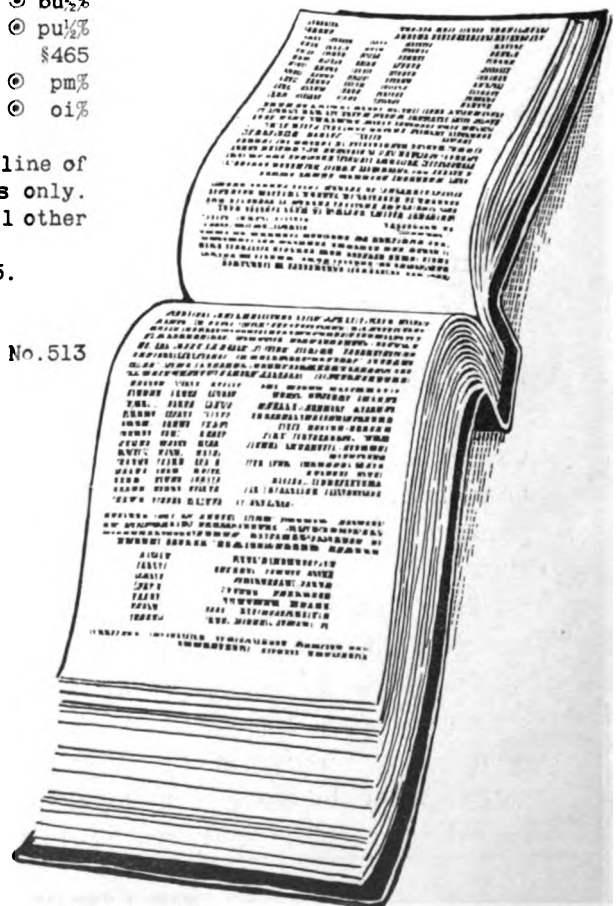
* List in No. 12 Catalog is "Eastern List" on "Dodge" line of Pulleys and may be used for Factory Shipments only.
 "Pacific Coast List" in Price Book is used in all other cases.

† Single Wood Bushings at prices named in catalog \$465.

‡ For Iron "Split-Bushings" add hp%.

Sept. 12, 1911, No. 513

FIG. 2
Price Book



CHAPTER XVI.

A CATALOGUE AUXILIARY, THE PRICE-BOOK.

ON account of fluctuating market prices on some lines, even though the market prices of many lines may be staple, and also due to the constantly advancing measuring ratio of the medium of exchange, gold, it is not to be expected that the list prices printed in catalogues, the use of which is to extend over a considerable period of time, can be the same as the selling prices of the articles represented. On account of these changes and the constantly advancing figures, it has been customary for both manufacturers and distributors to insert list prices the amounts of which are sufficiently high to allow a substantial discount to be given, even in the face of an advance in the market beyond a point which could have reasonably been anticipated.

Some system of price-issuing to salesmen and price-clerks therefore becomes necessary, but any system which is inflexible and incapable of quick and easy change lacks efficiency. It may not be able to meet competition when market prices are lowered, nor be able on the other hand quickly to take advantage of the added profits possible due to rising market prices.

Many distributors issue price-sheets as inserts to be placed between the page-sheets of loose-leaf catalogues. Even in cases where loose-leaf catalogues are not issued to customers, special loose-leaf catalogues are provided for the salesmen, with further provision made for the insertion of interleaves containing the prices. The result is frequently an extremely bulky book, and in certain extreme cases it has been necessary to divide the catalogue into two separate books, and provide these with stout handles, dispensing with carrying-cases, on account of the added weight. Still further additions to these catalogues and the multiplication of the price-sheets has in some instances resulted in literally making pack-horses out of the traveling salesmen.

There is, in consequence of this tendency, a movement in the direction of providing salesmen with separate price-books, pocket-size price-books in the loose-leaf open-end form being the most desirable.

After various experiments, the author finally decided to use, in connection with the catalogue before referred to, the post type of loose-leaf price-book with flexible-back binder of sufficient size to accommodate price-sheets $4\frac{1}{2}$ by $8\frac{1}{2}$ inches, the paper being 16-pound bond. The size of the sheets used in this binder is shown in Plate 20.

This plate also shows the style of type used, namely, 8-point "Typewriter" linotype, spaced with 2-point leads.

The pages are set up by linotype, each line consequently being represented by a linotype slug, the type placed on galleys and stored in the type-form vault described in Chapter XIV. In case a change takes place, even in one item, a new slug to cover the change may be run, a set of new sheets printed and forwarded to the salesmen, with directions to return the superseded sheet.

For the sake of space economy and compactness of book, if the line is extensive, it is advisable to print on both sides of the sheets. It is thus self-evident that whenever an addition or change takes place, it is necessary to print both sides of the sheet. While this adds to the expense, the gain in compactness doubtless offsets the extra cost. Of course, if the line is not extensive, one side of the sheet only need be used, but a "long look ahead" should be taken and, if the line is likely to become extensive in the future, it will be advisable to adopt the two-side system of printing at the start.

Allowance should be made, in printing the price-sheets, for the amount of space that will be taken up by the binder. There should be left at the top of the face, or obverse side of the sheet, a margin approximately $1\frac{1}{2}$ inches deep, the exact size varying, of course, with the depth of the rigid portion of the binder, through which the binding-screws operate. The same allowance will be made at the foot of the reverse side of the sheet, provided the sheet is printed on both sides. A good deep margin is necessary as, in order to get full efficiency from the price-book, it will be necessary for the book to be so constructed as to render easy the reading of all printed matter on the page and it will be found that what appears to be an unnecessarily deep heading or margin on the first pages of the book will be found no more than advisable when the center of the price-book is reached.

While the price-book is loose-leaf in form, with the idea of permitting additions and corrections to be made from time to time, it will be found that so far as additions are concerned it will usually be possible to cover such additions in a line or two either at the bottom or in the body of some existent page. This being possible, it is well to err rather on the side of short pages than to have each page as full as possible and, in originally compiling the price-book, the pages should be made up with the idea of allowing the addition of at least five lines, should it become necessary to do so in the future.

It is evident that price-books may be used by price-clerks within the concern and will be found practically as convenient as card systems of price-recording, consisting in fact virtually of a vertical card system placed in a binder.

Attention is again called to the fact that typewriter style of type is used (miniature or 8-point typewriter type being the standard), for the reason that in the case of typewriter type each letter occupies the same amount of horizontal space. For example, there is assigned to, let us say, an I the same amount of space that is assigned to a W. This is necessary on the typewriter, as the horizontal spacing must be uniform, to make the use of a typewriting machine possible. In the case of ordinary type such as De Vinne or Cheltenham printers' type, the widths of letters vary, and would be useless in a price-book on account of the fact that columns of figures or letters could not be run in straight vertical lines or columns, a positive necessity in a price-book.

The form adopted on the price-book page is, of course, immaterial and must be devised by the pricing-department to meet the particular demands of the situation. A consideration of possible revision or change of the form used is, however, recom-

mended, and various schemes and plans should be devised and considered before deciding on the final form, since the form once decided upon should be considered final and any subsequent change would be probably awkward and expensive.

Some method of recording the sheets should be adopted, and it is suggested that all price-books be numbered and a record of the holders of the same kept. As revision price-sheets are issued, the receipt of these should be acknowledged by the holders of the price-book by the return of the superseded price-sheets, with the name of the sender written at some place on the sheet.

A system of identification of the pages in the catalogue to which the price-sheets refer must, of course, be adopted. If, for example, the stock-grouping system suggested in Chapter V is adopted, the stock-group numbers of the articles in the catalogue may be placed opposite the items in the price-book, in the right-hand margin, and this will prove to be sufficient identification. If page numbers only are used, reference may be by page numbers, though this will prove awkward in case of new catalogue issues, an entirely new set of price-sheets thus being necessitated. It is almost necessary to adopt the stock-grouping and numbering system described in Chapter V to effect the greatest permanency and efficiency in the price-book.

While it is not advisable to number the price-sheets in page-number form, nevertheless such sheets should be numbered in the order of their issue, to distinguish revision sheets from superseded sheets. The date of issue of each sheet should also be printed near the number of the sheet.

It is advisable to provide an index to the price-book, and if the stock-group numbering system is used, the index may refer to the group numbers, thus enabling the finding of any desired item in the body of the book after reference to the index.

With every issue of sheets a number of extra sheets should be printed, such extra sheets being filed vertically in a box of convenient size, the various sheets being filed numerically and separated by guide-cards of the proper size and style. These extra sheets are necessary for the purpose of furnishing extra sheets in case of mutilation or loss, and also for the purpose of using as "copy" in making corrections or revisions.

